

January 17, 2022

Megan Kuczka, DER Project Manager  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 9  
270 Michigan Avenue  
Buffalo, New York 14203

Re: **Monitoring and Sampling Summary (3<sup>rd</sup> Quarter 2021) Revised**  
Site Management Plan, Post Installation Monitoring & Inspection  
MOD-PAC CORP. Site, 1801 Elmwood Avenue, Buffalo, New York

Dear Ms. Kuczka:

In accordance with Section 4.4 Post-Remediation Media Monitoring and Sampling of the Site Management Plan (SMP)<sup>1</sup> for NYSDEC Site #C915314, Environmental Advantage, Inc. (EA), has completed the 2021 third quarter of the Sub-Slab Depressurization (SSD) systems post-installation inspections, monitoring, sampling/analysis and system maintenance. All information and data collected within the first six months of the SSD systems post-installation activities were summarized and included in the Site's Final Engineering Report (FER), and served as the basis for the required tasks as identified in the SMP. Additionally, a summary letter report<sup>2</sup> was submitted to the Department on March 31, 2020, which provided the results of the post-installation maintenance and monitoring of the SSD systems completed from late-September 2019 through March 2020 by Hazard Evaluations, Inc. (HEI). EA has completed all post-installation maintenance and monitoring since March 2020. EA has prepared this summary letter report which provides the results of the post-installation maintenance, inspection and monitoring of the SSD systems completed from July 1, 2021 through September 30, 2021. The attachments to this letter report include figures (Attachment A), summary tables (Attachment B), field notes (Attachment C), and analytical laboratory reports (Attachment D).

After discussions with the Department, New York State Department of Health (NYSDOH) representatives, and Matrix Environmental Technologies, Inc. (METI), the engineering firm responsible for the design and annual inspection and certification of the SSD systems, it was determined that monthly gauging and quarterly groundwater sampling of the Site's four groundwater monitoring wells subject to the remedial program was warranted to investigate the apparent seasonal correlation to maintaining a negative pressure of at least 0.002 inches water column (WC) in the sub-slab. To this regard, monthly monitoring well water level gauging commenced in March 2021, and quarterly groundwater sampling commenced in July 2021, three

<sup>1</sup> "Site Management Plan for MOD-PAC Site, 1801 Elmwood Avenue, City of Buffalo, Erie County, New York, Site No. C915314" prepared by C&S Engineers, Inc., December 2019.

<sup>2</sup> "SSDS Monitoring and Sampling Summary (1st Quarter 2020)" prepared by Hazard Evaluations, Inc. (HEI), dated March 2020.



months after the SMP required annual groundwater sampling event. In addition to monthly gauging and quarterly groundwater sampling, monthly vacuum readings were collected for any vapor monitoring point (VMP) that failed to achieve the minimum negative pressure of at least 0.002 inches WC during quarterly SSD inspections. The monthly non-compliant VMP monitoring is continued for any affected VMP until that VMP achieves the minimum negative pressure as designed. The locations of the groundwater monitoring wells and SSD systems are shown on Figure 1.

### **SSDS Installation**

The SSD systems at the MOD-PAC CORP. (MPC) Site were installed to mitigate potential vapor migration into the building by maintaining a negative pressure of at least 0.002 inches water column (WC) in the sub-slab of three target areas; Area A the finished product storage area, Area B the cold storage garage, and Area C the facility maintenance area, as shown in Figures 2A – 2C provided in Attachment A.

These locations were selected based on elevated sub-slab vapor and/or indoor air sampling results detected during investigations completed in December 2017, April 2018 and May 2018. The SSD systems were installed during September 2019, and all systems were operational and tested by October 25, 2019. Post-installation maintenance, inspection and monitoring were completed in accordance with the NYSDEC-approved Work Plan prepared by METI<sup>3</sup>.

### **Post-Installation SSD Maintenance and Monitoring**

In accordance with the Work Plan prepared by METI, system checks were completed in all areas on a weekly basis for the first month of systems operation (September through October 2019), monthly for the following two months (November and December 2019), and quarterly thereafter (beginning January 2020). Routine monitoring includes the identification and repair of any leaks, operational status checks of blowers and fans, documentation of manifold settings and vacuum point at each vapor extraction point, and documentation of vacuum at each monitoring point. Non-routine maintenance, including carbon change outs, will be completed as necessary based on analytical data of pre- and post-carbon samples. Area-specific findings during the Q3 2021 monitoring event are summarized in Table 1, and historical data are presented in Table 2A for Area A, Table 2B for Area B, and Table 2C for Area C, all of which are provided in Attachment B.

Pre- and post-carbon air samples were collected from Area A on a monthly basis for the initial three months of system operation (October, November, and December 2019) and were reduced to a quarterly frequency thereafter (beginning in January 2020). All samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via Environmental Protection Agency (EPA) Method TO-15. Air sample results are summarized in Table 3 provided in Attachment B. In addition, pre-

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<sup>3</sup> "Work Plan for Sub-Slab Depressurization Systems" prepared by Matrix Environmental Technologies, Inc., dated February 2019.

and post-carbon photoionization detector (PID) readings were collected from Area A, as well as from Areas B and C effluent, on a weekly basis for the first month of systems operation and since that time have been collected on a monthly basis.

### **SSD Area A – Finished Product Storage Area**

During the Q3 2021 monitoring event, manometer readings for all VMPs in Area A achieved the minimum negative pressure of at least 0.002 inches WC in the sub-slab. VMP-6A is no longer monitored during inspections, as this VMP has been verified as a dead point, as described in Section 5.1 – ‘Area A Testing’ of METI’s “System Start-up Report and Operation and Maintenance Plan”<sup>4</sup> as provided within Appendix H – Operation and Maintenance Manual of the SMP.

Within this system, pre-carbon PID readings ranged from 0 to 0.3 ppm, and post-carbon PID readings were consistently 0.0 parts per million (ppm) throughout the monitoring period. Pre- and post-carbon air samples were collected on September 8, 2021 and analyzed for VOCs via EPA Method TO-15. Post-carbon analytical data exhibited lower concentrations of chlorinated compounds when compared to pre-carbon concentrations with the exception of cis-1,2-Dichloroethene. Most non chlorinated compounds yielded slightly higher concentrations in the post-carbon sample when compared to pre-carbon concentrations, however, overall VOCs reduction was 97.41 percent. Based on these results, carbon replacement is warranted and will be scheduled prior to the next monitoring event. Air sample results for Q3 2021 are summarized in Table 3, with historical air sample results summarized in Table 4, provided in Attachment B.

Although replacement is warranted, air analytical results indicated the carbon is still adequately removing the bulk of the VOCs detected, as the total reduction of VOCs from the pre-carbon to post-carbon was 97.41 percent for the quarter. This indicates the carbon is both adequately removing and breaking down the detected VOCs. The complete analytical laboratory report is provided in Attachment D.

### **SSD Area B – Cold Storage Area**

During the Q3 2021 monitoring event, manometer readings for all VMPs did achieve the minimum 0.002 inches WC in the sub-slab. System effluent PID readings were 0.0 ppm throughout the monitoring period. Air samples were not collected during the current monitoring period. Based on previous air sampling results obtained, a determination was made that a carbon system did not need to be installed on this emission point.

### **SSD Area C – Maintenance Area**

During the Q3 2021 monitoring event, manometer readings for all VMPs met the minimum 0.002 inches WC in the sub-slab. System effluent PID readings were consistently 0.0 throughout the current monitoring period for EW-1C, EW-2C, and EW-3C.

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<sup>4</sup> Matrix Environmental Technologies, Inc. ‘Sub-Slab Depressurization System Start-up Report and Operation and Maintenance Plan, December 12, 2019.

## **Groundwater Monitoring**

During the Q2 2021 monitoring period, water table elevation measurements collected in April, May and June 2021 ranged from 4.13 feet below grade to 6.80 feet below grade; water table elevations were the highest in April 2021 and the lowest in June 2021. During the current monitoring period water table elevation measurements collected in July, August, and September 2021 ranged from 3.35 feet below grade to 6.95 feet below grade. During this monitoring year, water table elevations were the highest in September 2021 and the lowest in July 2021. Please Note: Water table elevations were measured from the top of the riser pipe for each respective well. Historical groundwater monitoring results are summarized in Table 5 provided in Attachment B.

Groundwater samples were collected on July 1, 2021, from the four monitoring wells included in the remedial program: MW – 3, MW – 11, MW – 12, and MW – 13. All samples were submitted for laboratory analysis of Target Compound List (TCL) VOCs via EPA Method 8260. Groundwater sample results are summarized in Table 6 in Attachment B. Five chlorinated VOCs (CVOCs) and one non-chlorinated VOC were detected in the groundwater samples. Cis-1,2- dichloroethene, trans-1,2- dichloroethene, trichloroethene (TCE), and vinyl chloride were detected at concentrations that exceed the TOGS 1.1.1 Groundwater Effluent Limitations<sup>5</sup>. 1,1- dichloroethene and benzene were also detected; however, at concentrations below the TOGS 1.1.1 Limitations. MW - 3 and MW – 11 exhibited the highest recorded level of TCE since groundwater monitoring was initiated in 2018; however, in July 2021 the groundwater levels were the lowest recorded in both MW – 3 and MW – 11. MW – 12 exhibited non-detect VOCs concentrations as has been characteristic of this particular well, and MW – 13 has rebounded to close to pre-remedy levels of TCE. Historical groundwater monitoring and sampling data results are summarized in Table 6 in Attachment B. The complete analytical laboratory report is provided in Attachment D.

## **Corrective Measures**

During the July 1, 2021 monthly monitoring event, the fan at EW-2 was observed to be not functioning properly. Both METI and MPC personnel inspected the fan and found that the newly installed timer for the fan was malfunctioning, causing the fan to shut off. The timer was repaired by METI, and as of July 9, 2021 the fan has been operating continuously without interruption.

During the Q3 2021 monitoring event in September, EA noted that vapor trenches for EW-2B, EW-8B and EW-3C have a few minor cracks present. However, there is no evidence of air leakage in the trenches at this time. EA recommends re-epoxying the cracks in the vapor trench, and will forward this recommendation to the Site owner.

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<sup>5</sup> NYSDEC “Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations” dated June 1998.

During the Quarterly Inspections completed on June 11, 2021 and September 8, 2021, all vapor monitoring points (VMPs) met the minimum 0.002 inches WC negative pressure in the sub-slab as required, including VMP-1C and VMP-4C which had exhibited readings of 0.000 inches WC in March 2021, and VMP-5B, which had exhibited a 0.000 inches WC readings in March and April 2021. Fan malfunction was found to be the cause of the non-compliant readings at VMP-1C and VMP-4C, and a new fan was installed at EW-1C on May 19, 2021 as previously reported. Once the new fan was installed at EW-1C, VMP-1C and VMP-4C immediately achieved the minimum negative pressure as designed. A cause has not been determined for the non-compliant readings at VMP-5B, the apparent seasonal correlation to maintaining a negative pressure of at least 0.002 inches water column (WC) in the sub-slab of the three target areas is still under investigation.

### **Conclusions and Scheduling**

During the Q3 2021 monitoring period, all manometers met the minimum 0.002 inches WC in the sub-slab and all of the SSD systems appeared to be functioning properly.

Post-carbon analytical data collected during Q3 2021 yielded lower quantity of chlorinated compounds compared to pre-carbon quantities with the exception of cis-1,2-Dichloroethene. Most non-chlorinated compounds yielded slightly higher quantities in post-carbon compared to pre-carbon, however, overall total VOCs reduction was 97.41 percent. Based on these results, carbon replacement is warranted and will be scheduled prior to the next monitoring event. Previous carbon replacement was completed on September 23, 2020, therefore carbon life for the treatment system in Area A has been consistent at approximately 1 year. Continued system inspections, monitoring, and sampling will be completed for the fourth quarter of 2021.

As previously postulated, the apparent seasonal correlation to maintaining a negative pressure of at least 0.002 inches water column (WC) in the sub-slab of the three target areas is still under investigation. This condition may be associated with changing groundwater levels at the Site, based on historical data. Water table levels monitored in the eastern portion of the Site in April 2020 and 2021 were at an approximate depth of five feet below grade (4.73 feet and 5.18 feet, respectively). Water table levels monitored in June and September 2021 were at an average depth of 5.65 feet and 4.75 feet below grade, respectively. If the groundwater surface rises to even a limited extent during the winter/early spring months, the vadose zone beneath the SSD systems becomes very limited, which apparently leads to some level of upward draw by the SSD system, possibly creating areas of blockage beneath the building floors. Some continuing evidence for this condition has been provided as all manometer readings collected during the summer and fall months of 2019, 2020 and 2021 met the minimum 0.002 inches WC in the sub-slab zones. EA is still monitoring this relationship for the foreseeable future.

If you have any questions regarding this information presented above, please contact me directly for further information.

Very truly yours,  
ENVIRONMENTAL ADVANTAGE, INC.

A handwritten signature in blue ink, appearing to read "C. Mark Hanna".

C. Mark Hanna, CHMM  
President

Attachments

## ATTACHMENT A

Figures



Key

- = Soil boring location
- = Test pit location
- ⊗ = Monitoring well
- = Surface soil sample
- ▼ = Vapor intrusion sample
- = Soil sample location
- = SSD Systems
- = Previous Soil Sample /Monitoring Well

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CONRAIL (FORMERLY NEW YORK CENTRAL RAILROAD)



**ENVIRONMENTAL ADVANTAGE, INC.**  
*Regulatory Compliance – Site Investigations – Facility Inspections*

**BCP SITE PLAN**  
**MOD-PAC, CORP.**  
 1801 ELMWOOD AVENUE  
 BUFFALO, NEW YORK

DRAWN BY: MB	SCALE: NOT TO SCALE	PROJECT: 01304
CHECKED BY: CMH	DATE: 11/2021	FIGURE NO: 1

Figure adapted from Figure 3 within the Site Management Plan for MOD-PAC BCP Site No. C915314

THIS FIGURE WAS ADAPTED FROM SITE MANAGEMENT PLAN PREPARED FOR MOD-PAC CORPORATION (DECEMBER 2019)

**FIGURE 4A.**  
Area A SSDS Layout and Piping Diagram

- Vapor Monitoring Point (permanent)
- Vapor Monitoring Point (temporary/decommissioned)
- Extraction Well
- Piping below grade
- Piping above grade

**VMP-1A Vacuum Readings (in WC):**  
 09/26/2019: -0.066  
 10/03/2019: -0.065  
 10/09/2019: -0.061  
 11/05/2019: -0.041  
 12/03/2019: -0.045  
 02/11/2020: -0.037  
 03/27/2020: -0.025  
 06/29/2020: -0.053  
 09/15/2020: -0.053  
 12/08/2020: -0.048  
 03/30/2021: -0.038  
 06/11/2021: -0.073  
 09/08/2021: -0.091

**VMP-5A Vacuum Readings (in WC):**  
 09/26/2019: -0.128  
 10/03/2019: -0.116  
 10/09/2019: -0.103  
 11/15/2019: -0.062  
 12/03/2019: -0.056  
 02/11/2020: -0.036  
 03/27/2020: -0.032  
 06/29/2020: -0.080  
 09/15/2020: -0.033  
 12/08/2020: -0.050  
 03/30/2021: -0.022  
 06/11/2021: -0.074  
 09/08/2021: -0.086

**VMP-7A Vacuum Readings (in WC):**  
 09/26/2019: -0.025  
 10/03/2019: -0.019  
 10/09/2019: -0.020  
 11/15/2019: -0.013  
 12/03/2019: -0.010  
 02/11/2020: **+0.000**  
 03/27/2020: **+0.000**  
 06/29/2020: -0.010  
 09/15/2020: -0.017  
 12/08/2020: **+0.000**  
 03/30/2021: -0.020  
 06/11/2021: -0.026  
 09/08/2021: -0.028

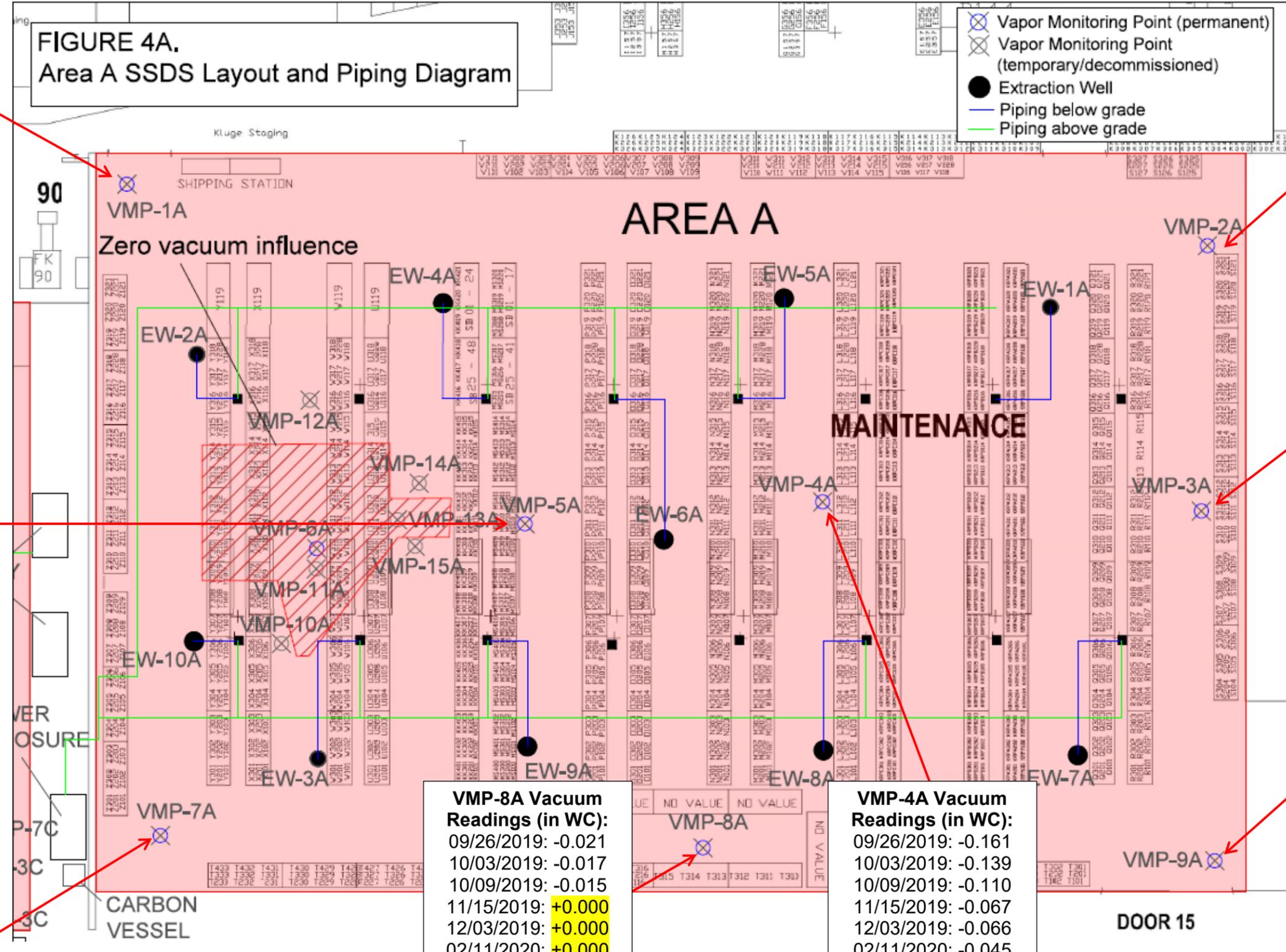
**VMP-8A Vacuum Readings (in WC):**  
 09/26/2019: -0.021  
 10/03/2019: -0.017  
 10/09/2019: -0.015  
 11/15/2019: **+0.000**  
 12/03/2019: **+0.000**  
 02/11/2020: **+0.000**  
 03/27/2020: **+0.000**  
 06/29/2020: -0.017  
 09/15/2020: -0.014  
 12/08/2020: **+0.000**  
 03/30/2021: -0.014  
 06/11/2021: -0.022  
 09/08/2021: -0.190

**VMP-4A Vacuum Readings (in WC):**  
 09/26/2019: -0.161  
 10/03/2019: -0.139  
 10/09/2019: -0.110  
 11/15/2019: -0.067  
 12/03/2019: -0.066  
 02/11/2020: -0.045  
 03/27/2020: -0.032  
 06/29/2020: -0.124  
 09/15/2020: -0.093  
 12/08/2020: -0.152  
 03/30/2021: -0.063  
 06/11/2021: -0.105  
 09/08/2021: -0.140

**VMP-2A Vacuum Readings (in WC):**  
 09/26/2019: -0.044  
 10/03/2019: -0.037  
 10/09/2019: -0.034  
 11/15/2019: -0.029  
 12/03/2019: -0.025  
 02/11/2020: -0.020  
 03/27/2020: -0.023  
 06/29/2020: -0.064  
 09/15/2020: -0.052  
 12/08/2020: -0.033  
 03/30/2021: -0.052  
 06/11/2021: -0.065  
 09/08/2021: -0.088

**VMP-3A Vacuum Readings (in WC):**  
 09/26/2019: -0.075  
 10/03/2019: -0.053  
 10/09/2019: -0.045  
 11/15/2019: -0.023  
 12/03/2019: -0.031  
 02/11/2020: -0.015  
 03/27/2020: -0.016  
 06/29/2020: -0.063  
 09/15/2020: -0.043  
 12/08/2020: -0.026  
 03/30/2021: -0.032  
 06/11/2021: -0.055  
 09/08/2021: -0.075

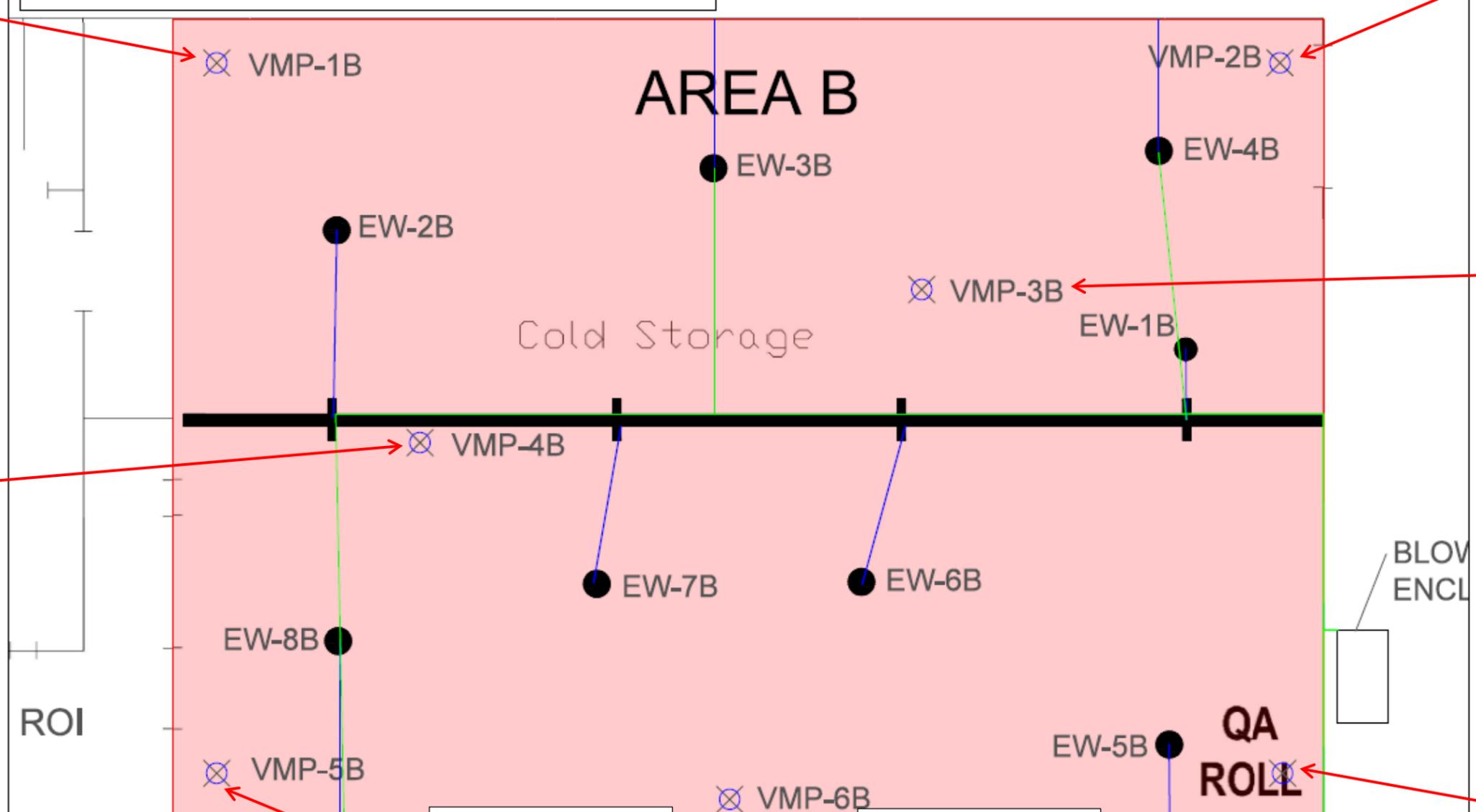
**VMP-9A Vacuum Readings (in WC):**  
 09/26/2019: -0.173  
 10/03/2019: -0.105  
 10/09/2019: -0.100  
 11/15/2019: -0.067  
 12/03/2019: -0.054  
 02/11/2020: -0.037  
 03/27/2020: -0.022  
 06/29/2020: -0.094  
 09/15/2020: -0.058  
 12/08/2020: -0.065  
 03/30/2021: -0.047  
 06/11/2021: -0.074  
 09/08/2021: -0.149



**ENVIRONMENTAL ADVANTAGE, INC.**  
 Regulatory Compliance – Site Investigations – Facility Inspections  
**SSDS AREA A MANOMETER READINGS**  
 1801 ELMWOOD AVENUE  
 BUFFALO, NEW YORK

DRAWN BY: MB	SCALE: NOT TO SCALE	PROJECT: 01304
CHECKED BY: CMH	DATE: 09/2021	FIGURE NO: 2A

**FIGURE 4B.**  
Area B SSDS Layout and Piping Diagram



**VMP-1B Vacuum Readings (in WC):**

09/26/2019:	N/A
10/03/2019:	-0.023
10/09/2019:	-0.018
11/05/2019:	-0.016
12/03/2019:	-0.014
02/11/2020:	+0.000
03/27/2020:	+0.000
06/29/2020:	-0.018
09/15/2020:	-0.017
12/08/2020:	+0.000
03/30/2021:	-0.010
06/11/2021:	-0.045
09/08/2021:	-0.045

**VMP-4B Vacuum Readings (in WC):**

09/26/2019:	N/A
10/03/2019:	-0.383
10/09/2019:	-0.329
11/05/2019:	-0.271
12/03/2019:	-0.156
02/11/2020:	-0.161
03/27/2020:	-0.171
06/29/2020:	-0.343
09/15/2020:	-0.361
12/08/2020:	-0.208
03/30/2021:	-0.219
06/11/2021:	-0.903
09/08/2021:	-1.020

- ⊗ Vapor Monitoring Point (permanent)
- ⊗ Vapor Monitoring Point (temporary/decommissioned)
- Extraction Well
- Piping below grade
- Piping above grade

**VMP-5B Vacuum Readings (in WC):**

09/26/2019:	-0.044
10/03/2019:	-0.037
10/09/2019:	-0.030
11/05/2019:	-0.014
12/03/2019:	+0.000
02/11/2020:	N/A
03/27/2020:	+0.000
06/29/2020:	-0.026
09/15/2020:	-0.045
12/08/2020:	+0.000
03/30/2021:	+0.000
06/11/2021:	-0.039
09/08/2021:	-0.034

**VMP-6B Vacuum Readings (in WC):**

09/26/2019:	-0.016
10/03/2019:	-0.018
10/09/2019:	-0.010
11/05/2019:	+0.000
12/03/2019:	+0.000
02/11/2020:	+0.000
03/27/2020:	-0.010
06/29/2020:	-0.022
09/15/2020:	-0.005
12/08/2020:	+0.000
03/30/2021:	-0.010
06/11/2021:	-0.016
09/08/2021:	-0.041

**VMP-2B Vacuum Readings (in WC):**

09/26/2019:	-0.065
10/03/2019:	-0.062
10/09/2019:	-0.055
11/05/2019:	-0.018
12/03/2019:	-0.032
02/11/2020:	-0.040
03/27/2020:	-0.040
06/29/2020:	-0.064
09/15/2020:	-0.040
12/08/2020:	-0.020
03/30/2021:	-0.045
06/11/2021:	-0.051
09/08/2021:	-0.058

**VMP-3B Vacuum Readings (in WC):**

09/26/2019:	-0.419
10/03/2019:	-0.303
10/09/2019:	-0.258
11/05/2019:	-0.217
12/03/2019:	-0.114
02/11/2020:	N/A
03/27/2020:	-0.163
06/29/2020:	-0.354
09/15/2020:	-0.118
12/08/2020:	-0.137
03/30/2021:	-0.162
06/11/2021:	-0.262
09/08/2021:	-0.285

**VMP-7B Vacuum Readings (in WC):**

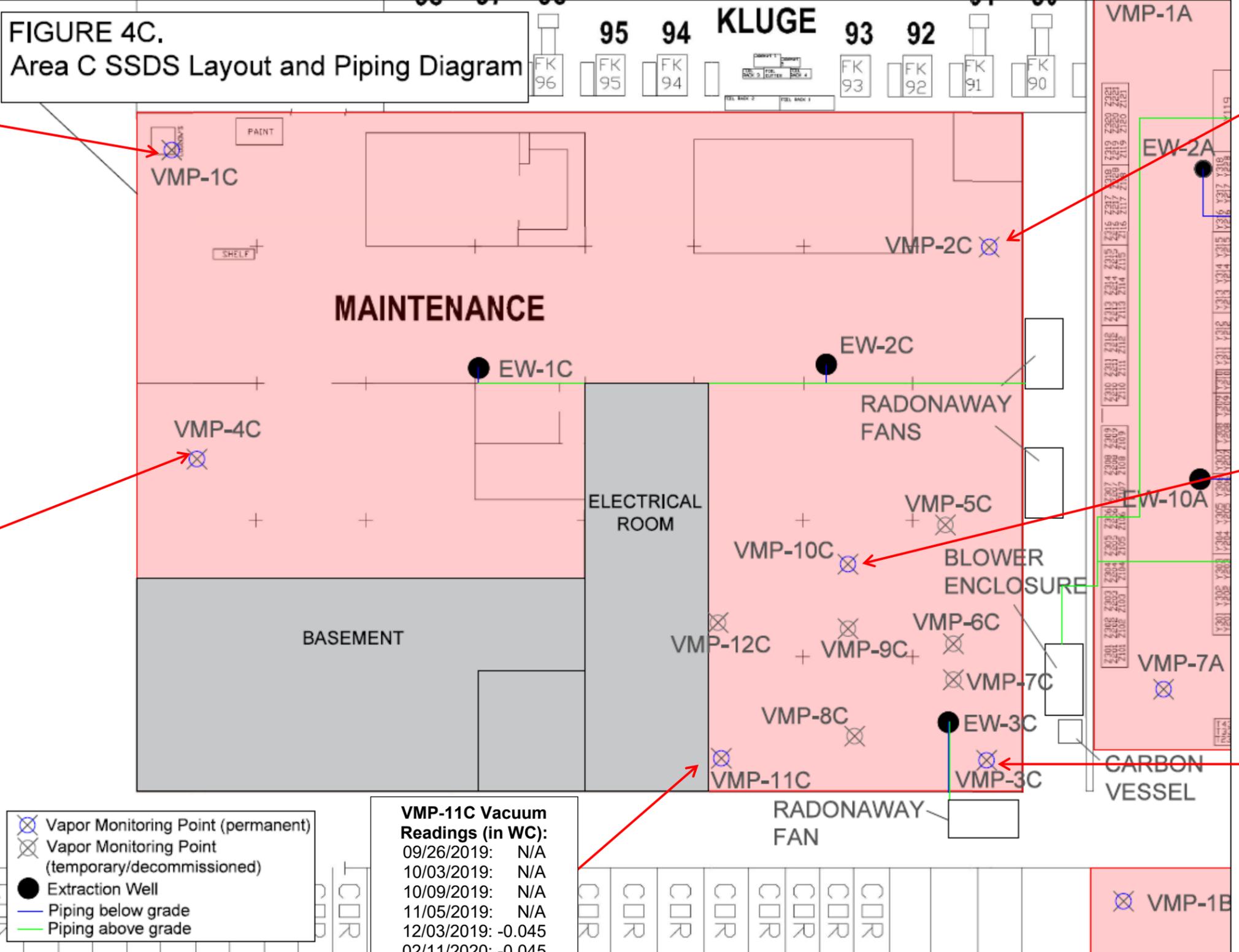
09/26/2019:	-0.200
10/03/2019:	-0.196
10/09/2019:	-0.178
11/05/2019:	-0.171
12/03/2019:	-0.136
02/11/2020:	-0.072
03/27/2020:	-0.152
06/29/2020:	-0.198
09/15/2020:	-0.160
12/08/2020:	-0.203
03/30/2021:	-0.197
06/11/2021:	-0.201
09/08/2021:	-0.060

**ENVIRONMENTAL ADVANTAGE, INC.**  
Phase I/II Audits – Site Investigations – Facility Inspections

**SSDS AREA LOCATIONS**  
1801 ELMWOOD AVENUE  
BUFFALO, NEW YORK

DRAWN BY: MB	SCALE: NOT TO SCALE	PROJECT: 01304
CHECKED BY: CMH	DATE: 09/2021	FIGURE NO: 2B

THIS FIGURE WAS ADAPTED FROM SITE MANAGEMENT PLAN PREPARED FOR MOD-PAC CORPORATION (DECEMBER 2019)



**VMP-1C Vacuum Readings (in WC):**

09/26/2019:	-0.046
10/03/2019:	-0.055
10/09/2019:	-0.037
11/05/2019:	-0.042
12/03/2019:	+0.000
02/11/2020:	-0.019
03/27/2020:	-0.019
06/29/2020:	-0.019
09/15/2020:	-0.012
12/08/2020:	-0.012
03/30/2021:	+0.000
06/11/2021:	-0.020
09/08/2021:	-0.049

**VMP-4C Vacuum Readings (in WC):**

09/26/2019:	-0.061
10/03/2019:	-0.081
10/09/2019:	-0.060
11/05/2019:	-0.067
12/03/2019:	+0.004
02/11/2020:	-0.038
03/27/2020:	-0.029
06/29/2020:	-0.018
09/15/2020:	-0.024
12/08/2020:	-0.021
03/30/2021:	+0.000
06/11/2021:	-0.024
09/08/2021:	-0.075

- ⊗ Vapor Monitoring Point (permanent)
- ⊗ Vapor Monitoring Point (temporary/decommissioned)
- Extraction Well
- Piping below grade
- Piping above grade

**VMP-11C Vacuum Readings (in WC):**

09/26/2019:	N/A
10/03/2019:	N/A
10/09/2019:	N/A
11/05/2019:	N/A
12/03/2019:	-0.045
02/11/2020:	-0.045
03/27/2020:	-0.060
06/29/2020:	-0.061
09/15/2020:	-0.039
12/08/2020:	-0.038
03/30/2021:	-0.020
06/11/2021:	-0.097
09/08/2021:	-0.022

**VMP-2C Vacuum Readings (in WC):**

09/26/2019:	-0.085
10/03/2019:	-0.092
10/09/2019:	-0.075
11/05/2019:	-0.067
12/03/2019:	-0.027
02/11/2020:	-0.026
03/27/2020:	-0.033
06/29/2020:	-0.050
09/15/2020:	-0.040
12/08/2020:	-0.038
03/30/2021:	-0.022
6/11/2021:	-0.054
09/08/2021:	-0.042

**VMP-10C Vacuum Readings (in WC):**

09/26/2019:	N/A
10/03/2019:	N/A
10/09/2019:	N/A
11/05/2019:	N/A
12/03/2019:	-0.045
02/11/2020:	-0.045
03/27/2020:	-0.060
06/29/2020:	-0.061
09/15/2020:	-0.039
12/08/2020:	-0.038
03/30/2021:	-0.025
06/11/2021:	-0.058
09/08/2021:	-0.066

**VMP-3C Vacuum Readings (in WC):**

09/26/2019:	+0.000
10/03/2019:	+0.000
10/09/2019:	+0.000
11/05/2019:	+0.000
12/03/2019:	-0.026
02/11/2020:	-0.032
03/27/2020:	-0.038
06/29/2020:	-0.040
09/15/2020:	-0.038
12/08/2020:	-0.026
03/30/2021:	-0.037
06/11/2021:	-0.039
09/08/2021:	-0.040

**ENVIRONMENTAL ADVANTAGE, INC.**  
Phase I/II Audits – Site Investigations – Facility Inspections

**SSDS AREA LOCATIONS**  
1801 ELMWOOD AVENUE  
BUFFALO, NEW YORK

DRAWN BY: MB	SCALE: NOT TO SCALE	PROJECT: 01304
CHECKED BY: CMH	DATE: 09/2021	FIGURE NO: 2C

## ATTACHMENT B

Tables

**Table 1**  
**MOD-PAC CORP., 1801 Elmwood Ave, Buffalo, NY**  
**SSDS Post Installation Monitoring Results**  
**Q3 2021 Summary**

**Area A - Finished Product Storage Area**

Date	Extraction Wells (in WC)										Blower (PSI)	Pre-carbon PID Reading (ppm)	Post-carbon PID Reading (ppm)
	EW-1A	EW-2A	EW-3A	EW-4A	EW-5A	EW-6A	EW-7A	EW-8A	EW-9A	EW-10A			
9/8/2021	17	17	18	18	17	0	18	18	18	18	16	0.3	0.0

Date	Vapor Monitoring Points (in WC)							
	VMP-1A	VMP-2A	VMP-3A	VMP-4A	VMP-5A	VMP-7A	VMP-8A	VMP-9A
9/8/2021	-0.091	-0.088	-0.075	-0.140	-0.086	-0.028	-0.190	-0.149

**Area B - Cold Storage Garage**

Date	Extraction Wells (in WC)								Blower (PSI)	System Effluent PID Reading (ppm)
	EW-1B	EW-2B	EW-3B	EW-4B	EW-5B	EW-6B	EW-7B	EW-8B		
9/8/2021	20	21	22	23	22	22	21	21	19	0.0

Date	Vapor Monitoring Points (in WC)						
	VMP-1B	VMP-2B	VMP-3B	VMP-4B	VMP-5B	VMP-6B	VMP-7B
9/8/2021	-0.045	-0.058	-0.285	-1.020	-0.034	-0.041	-0.060

**Area C - Maintenance Area**

Date	Extraction Wells (in WC)			System Effluent PID Reading (ppm)		
	EW-1C	EW-2C	EW-3C	EW-1C	EW-2C	EW-3C
9/8/2021	29	31	30	0.0	0.0	0.0

Date	Vapor Monitoring Points (in WC)					
	VMP-1C	VMP-2C	VMP-3C	VMP-4C	VMP-10C	VMP-11C
9/8/2021	-0.049	-0.042	-0.040	-0.075	-0.066	-0.022

**Note:**

1. in WC = inches water column; PSI = pounds per square inch; ppm = parts per million;

**Table 2A**  
**MOD-PAC CORP., 1801 Elmwood Ave, Buffalo, NY**  
**SSDS Post Installation Monitoring Results**  
**Area A - Finished Product Storage Area**

Date	Extraction Wells (in WC)										Blower (PSI)	Pre-carbon PID Reading (ppm)	Post-carbon PID Reading (ppm)
	EW-1A	EW-2A	EW-3A	EW-4A	EW-5A	EW-6A	EW-7A	EW-8A	EW-9A	EW-10A			
9/26/2019	14.5	14.5	15.5	14.5	15	1	14.5	15	14.5	15.5	12	3.3	1.5
10/3/2019	14	14	15	14	14	1	14	15	14	15	12	52.6	12.7
10/9/2019	13	13.5	14	13.5	13.5	1	13.5	14	13.5	14.5	13	0.0	0.0
11/5/2019	11.5	12	12.5	11.5	12	1	12	12	11.5	12.5	10	4.7	0.5
12/3/2019	11	11.5	12	11	11.5	1	11.5	11.5	11.5	12	10	1.0	0.1
1/22/2020												0.2	0.0
2/11/2020	10	10.5	11	10.5	11	1	11	11	10.5	11.5	9	0.5	0.0
3/27/2020	10	10	11	10.5	11	1	10.5	10.5	10	11	8	47.8	27.1
6/29/2020	13	13	13.5	13	13	1	13	13	13	13.5	14	0.4	0.4
7/31/2020												0.0	0.0
8/28/2020												0.0	0.0
9/15/2020	13.5	14	14.5	14	14	1	14	14.5	14.5	15	14	2.7	1.1
10/15/2020												7.8	4.6
11/4/2020												0.0	0.0
12/8/2020	12.5	13	13.5	13	13	1	13	14	13	14	12	0.6	0.0
1/4/2021												0.4	0.0
2/18/2021												1.0	0.0
3/30/2021	13	14	14	14	14	0	14	14	14	15	12	0.0	0.0
4/14/2021												0.4	0.0
5/20/2021												0.4	0.0
6/11/2021	16	16	16	16	16	0	16	17	17	17	15	0.1	0.0
7/1/2021											16	0.0	0.0
8/25/2021											18	0.0	0.0
9/8/2021	17	17	18	18	17	0	18	18	18	18	16	0.3	0.0

Date	Vapor Monitoring Points (in WC)								
	VMP-1A	VMP-2A	VMP-3A	VMP-4A	VMP-5A	VMP-6A	VMP-7A	VMP-8A	VMP-9A
9/26/2019	-0.066	-0.044	-0.075	-0.161	-0.128	+0.000	-0.025	-0.021	-0.173
10/3/2019	-0.065	-0.037	-0.053	-0.139	-0.116	+0.000	-0.019	-0.017	-0.105
10/9/2019	-0.061	-0.034	-0.045	-0.110	-0.103	+0.000	-0.020	-0.015	-0.100
11/5/2019	-0.041	-0.029	-0.023	-0.067	-0.062	+0.010	-0.013	+0.000	-0.067
12/3/2019	-0.045	-0.025	-0.031	-0.066	-0.056	+0.020	-0.010	+0.000	-0.054
2/11/2020	-0.037	-0.020	-0.015	-0.045	-0.036	+0.015	+0.000	+0.000	-0.037
3/27/2020	-0.025	-0.023	-0.016	-0.032	-0.032	+0.010	+0.000	+0.000	-0.022
6/29/2020	-0.053	-0.064	-0.063	-0.124	-0.080	Removed	-0.010	-0.017	-0.094
9/15/2020	-0.053	-0.052	-0.043	-0.093	-0.033	Removed	-0.017	-0.014	-0.058
12/8/2020	-0.048	-0.033	-0.026	-0.152	-0.05	Removed	+0.000	+0.000	-0.065
3/30/2021	-0.038	-0.052	-0.032	-0.063	-0.022	Removed	-0.020	-0.014	-0.047
6/11/2021	-0.073	-0.065	-0.055	-0.105	-0.074	Removed	-0.026	-0.022	-0.074
9/8/2021	-0.091	-0.088	-0.075	-0.140	-0.086	Removed	-0.028	-0.190	-0.149

**Note:**

1. Yellow shading indicates that samples did not meet the minimum 0.002 inches WC
2. Blank space indicates that data was not collected
3. in WC = inches water column; PSI = pounds per square inch; ppm = parts per million;

**Table 2B**  
**MOD-PAC CORP., 1801 Elmwood Ave, Buffalo, NY**  
**SSDS Post Installation Monitoring Results**  
**Area B - Cold Storage Garage**

Date	Extraction Wells (in WC)								Blower (PSI)	System Effluent PID Reading (ppm)
	EW-1B	EW-2B	EW-3B	EW-4B	EW-5B	EW-6B	EW-7B	EW-8B		
9/26/2019	13	13.5	13.5	14.5	13.5	14	13	12	10.5	1.3
10/3/2019	13	13.5	13.5	14	13.5	14	13	12	10	1.4
10/9/2019	12.5	13	13	13.5	13	13.5	12	12	10	0.0
11/5/2019	12	13	12.5	13	12.5	13	11.5	11	9	0.5
12/3/2019	11	11	11	11.5	11	11.5	10.5	10	8	0.1
1/22/2020										0.0
2/11/2020	12.5	13	13	13.5	13	13.5	12	11.5	9	0.0
3/27/2020	14	15	14	15	15	15	14	13.5	10	0.0
6/29/2020	16	12	17	12.5	17	17	16	15.5	16	0.0
7/31/2020										0.0
8/28/2020										0.0
9/15/2020	17	18	17	18	18	18	17	16.5	16	2.7
10/15/2020										0.3
11/4/2020										0.0
12/8/2020	16.5	17	17	17	17	17	16.5	16	13	0.4
1/4/2021										0.0
2/18/2021										0.0
3/30/2021	16	17	17	17	17	17	16	16	12	0.0
4/14/2021										0.0
5/20/2021										0.1
6/11/2021	18	18	19	20	19	19	18	18	18	0.0
7/1/2021									18	0.0
8/25/2021									20	0.0
9/8/2021	20	21	22	23	22	22	21	21	19	0.0

Date	Vapor Monitoring Points (in WC)						
	VMP-1B	VMP-2B	VMP-3B	VMP-4B	VMP-5B	VMP-6B	VMP-7B
9/26/2019	N/A	- 0.065	- 0.419	N/A	- 0.044	- 0.016	- 0.200
10/3/2019	- 0.023	- 0.062	- 0.303	- 0.383	- 0.037	- 0.018	- 0.196
10/9/2019	- 0.018	- 0.055	- 0.258	- 0.329	- 0.030	- 0.010	- 0.178
11/5/2019	- 0.016	- 0.018	- 0.217	- 0.271	- 0.014	+ 0.000	- 0.171
12/3/2019	- 0.014	- 0.032	- 0.114	- 0.156	+ 0.000	+ 0.000	- 0.136
2/11/2020	+ 0.000	- 0.040	N/A	- 0.161	N/A	+ 0.000	- 0.072
3/27/2020	+ 0.000	- 0.040	- 0.163	- 0.171	+ 0.000	- 0.010	- 0.152
6/29/2020	- 0.018	- 0.064	- 0.354	- 0.343	- 0.026	- 0.022	- 0.0198
9/15/2020	- 0.017	- 0.041	- 0.118	- 0.361	- 0.045	- 0.005	- 0.160
12/8/2020	+0.000	-0.02	-0.137	-0.208	+0.000	+0.000	-0.203
3/30/2021	- 0.010	- 0.045	- 0.162	- 0.219	+0.000	- 0.010	- 0.197
4/14/2021	NG	NG	NG	NG	+0.000	NG	NG
5/20/2021	NG	NG	NG	NG	-0.014	NG	NG
6/11/2021	-0.045	-0.051	-0.262	-0.903	-0.039	-0.016	-0.201
9/8/2021	-0.045	-0.058	-0.285	-1.020	-0.034	-0.041	-0.060

**Note:**

1. Yellow shading indicates that samples did not meet the minimum 0.002 inches WC
2. N/A indicates the VMP was not accessible during the time of the system check
3. Blank space indicates that data was not collected
4. in WC = inches water column; PSI = pounds per square inch; ppm = parts per million;
5. NG = Not Gauged

**Table 2C**  
**MOD-PAC CORP., 1801 Elmwood Ave, Buffalo, NY**  
**SSDS Post Installation Monitoring Results**  
**Area C - Maintenance Area**

Date	Extraction Wells (in WC)			Fan System Effluent PID Reading (ppm)		
	EW-1C	EW-2C	EW-3C	EW-1C	EW-2C	EW-3C
9/26/2019	43	40		1.4	0.7	
10/3/2019	44	45		1.0	4.5	
10/9/2019	44.5	45.5		0.0	0.0	
11/5/2019	44	46		0.0	0.4	
12/3/2019		39	28		1.2	0.4
1/22/2020					0.4	0.0
2/11/2020	31	30	27.5	0.2	0.0	0.0
3/27/2020	29	32	28	0.0	0.0	0.0
6/29/2020	27	31	29	0.0	0.0	0.0
7/31/2020				0.0	0.0	0.0
8/28/2020				0.0	0.0	0.0
9/15/2020	28.5	31	29	0.0	0.0	0.0
10/15/2020				0.0	0.0	0.0
11/4/2020				0.0	0.0	0.0
12/8/2020	31	31	29	0.0	0.0	0.0
1/4/2021				0.0	0.0	0.0
2/18/2021						0.0
3/30/2021		32	30		0.0	0.0
4/14/2021					0.1	0.0
5/20/2021				0.0	0.0	0.0
6/11/2021	23	31	30	0.0	0.0	0.0
7/1/2021				0.0	0.0	0.0
8/25/2021				0.0	0.0	0.0
9/8/2021	29	31	30	0.0	0.0	0.0

Date	Vapor Monitoring Points (in WC)					
	VMP-1C	VMP-2C	VMP-3C	VMP-4C	VMP-10C	VMP-11C
9/26/2019	- 0.046	- 0.085	+ 0.000	- 0.061		
10/3/2019	- 0.055	- 0.092	+ 0.000	- 0.081		
10/9/2019	- 0.037	- 0.075	+ 0.000	- 0.060		
11/5/2019	- 0.042	- 0.067	+ 0.000	- 0.067		
12/3/2019	+ 0.000	- 0.027	- 0.026	+ 0.004	- 0.045	- 0.018
2/11/2020	- 0.019	- 0.026	- 0.032	- 0.038	- 0.045	- 0.020
3/27/2020	- 0.019	- 0.033	- 0.038	- 0.029	- 0.060	- 0.021
6/29/2020	- 0.019	- 0.050	- 0.040	- 0.018	- 0.061	- 0.044
9/15/2020	- 0.012	- 0.040	- 0.038	- 0.024	- 0.039	- 0.017
12/8/2020	-0.012	-0.038	-0.026	-0.021	-0.038	-0.016
3/30/2021	+ 0.000	- 0.022	- 0.037	+ 0.000	- 0.025	- 0.020
6/11/2021	-0.020	-0.054	-0.039	-0.024	-0.058	-0.097
9/8/2021	-0.049	-0.042	-0.040	-0.075	-0.066	-0.022

**Note:**

1. Yellow shading indicates that samples did not meet the minimum 0.002 inches WC
2. Blank space indicates that data was not collected
3. in WC = inches water column; PSI = pounds per square inch; ppm = parts per million;
4. Please note that a blower is not included within the extraction system of Area C and that the extraction system is operated by fans.

**Table 3**  
**MOD-PAC, Corp. 1801 Elmwood Avenue, Buffalo, NY**  
**Summary of Air Analytical Testing Results**

Parameter	September 2021 - L2148116	
	AREA A- PRE(090821)	AREA A- POST(090821)
<b>Volatile Organic Compounds (ug/m<sup>3</sup>)</b>		
1,1,1-Trichloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloro-1,2,2-Trifluoroethane		
1,1,2-Trichloroethane		
1,1-Dichloroethane		
1,1-Dichloroethene		
1,2,4-Trichlorobenzene		
1,2,4-Trimethylbenzene	42.4	53.1
1,2-Dibromoethane		
1,2-Dichloro-1,1,2,2-tetrafluoroethane		
1,2-Dichlorobenzene		
1,2-Dichloroethane		
1,2-Dichloroethene (total)		
1,2-Dichloropropane		
1,3,5-Trimethylbenzene	10.2	13.6
1,3-Butadiene		
1,3-Dichlorobenzene		
1,3-Dichloropropene, Total		
1,4-Dichlorobenzene		
1,4-Dioxane		
2,2,4-Trimethylpentane		1.37
2-Butanone	2.53	
2-Hexanone		
3-Chloropropene		
4-Ethyltoluene	6	8.26
4-Methyl-2-pentanone		3.53
Acetone	38.2	40.4
Benzene	2.75	5.46
Benzyl chloride		
Bromodichloromethane		
Bromoform		
Bromomethane		
Carbon disulfide	3.83	12.5
Carbon tetrachloride		
Chlorobenzene		
Chloroethane		
Chloroform	31.5	42.7
Chloromethane		0.564
cis-1,2-Dichloroethene	10.1	13.7
cis-1,3-Dichloropropene		
Cyclohexane		1.29
Dibromochloromethane		
Dichlorodifluoromethane	2.64	2.14
Ethyl Acetate		
Ethyl Alcohol	49.7	64.1
Ethylbenzene	9.64	16.8
Heptane	1.98	3.74
Hexachlorobutadiene		
iso-Propyl Alcohol	38.8	95.9
Methyl tert butyl ether		
Methylene chloride	2.62	
n-Hexane	4.16	61.3
o-Xylene	20.1	31.3
p/m-Xylene	48.6	79.1
Styrene	1.29	1.23
tert-Butyl Alcohol	2.26	8.94
Tetrachloroethene	2.28	
Tetrahydrofuran	2.14	3.19
Toluene	36.6	62.2
trans-1,2-Dichloroethene		0.841
trans-1,3-Dichloropropene		
Trichloroethene	559	1.27
Trichlorofluoromethane	6.07	4.08
Vinyl bromide		
Vinyl chloride		

**Notes:**

1. Compounds detected in one or more samples included in this table. For a list of all compounds, refer to analytical report in the Appendix.
2. Analytical testing for VOCs via TO-15 completed by Alpha Analytical.
3. Results present in ug/m<sup>3</sup> or microgram per cubic meter.
4. Parameters shaded in red indicate analytes of concern (Target VOCs)
5. Results in red indicate higher post-carbon readings over pre-carbon readings
6. Blank results = No Value Above Detection Limit



Table 5  
 Historical Groundwater Monitoring Data Summary  
 MOD-PAC CORP.

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Trichloroethene (µg/L)	% Increase/ Decrease TCE
					NY-TOGS-GA (5 µg/L)	
MW - 3	2/5/18	600.71	5.05	595.66	280	Baseline
	Potassium Permanganate Injections October 1, 2019 - October 10, 2019					
	4/15/20	600.71	5.54	595.17	370	32.14
	3/10/21	600.71	6.10	594.61	NT	N/A
	3/30/21	600.71	5.95	594.76	NT	N/A
	4/14/21	600.71	5.98	594.73	340	21.43
	5/20/21	600.71	6.10	594.61	NT	N/A
	6/11/21	600.71	6.12	594.59	NT	N/A
	7/1/21	600.71	6.30	594.41	400	42.86
	8/25/21	600.71	5.80	594.91	NT	N/A
	9/22/21	600.71	5.45	595.26	NT	N/A
MW - 11	2/5/18	600.41	4.66	595.75	40	Baseline
	Potassium Permanganate Injections October 1, 2019 - October 10, 2019					
	4/15/20	600.41	5.27	595.14	45	12.50
	3/10/21	600.41	5.82	594.59	NT	N/A
	3/30/21	600.41	5.74	594.67	NT	N/A
	4/14/21	600.41	5.74	594.67	16	-60.00
	5/20/21	600.41	5.84	594.57	NT	N/A
	6/11/21	600.41	5.85	594.56	NT	N/A
	7/1/21	600.41	6.00	594.41	47	17.50
	8/25/21	600.41	5.58	594.83	NT	N/A
	9/22/21	600.41	5.32	595.09	NT	N/A
MW - 12	2/5/18	600.50	4.52	595.98	0.44	Baseline
	Potassium Permanganate Injections October 1, 2019 - October 10, 2019					
	4/15/20	600.50	4.41	596.09	ND	-100.00
	3/10/21	600.50	5.03	595.47	NT	N/A
	3/30/21	600.50	4.86	595.64	NT	N/A
	4/14/21	600.50	4.86	595.64	ND	-100.00
	5/20/21	600.50	5.05	595.45	NT	N/A
	6/11/21	600.50	5.10	595.40	NT	N/A
	7/1/21	600.50	5.35	595.15	ND	-100.00
	8/25/21	600.50	4.80	595.70	NT	N/A
	9/22/21	600.50	4.40	596.10	NT	N/A
MW - 13	2/5/18	600.31	4.44	595.87	160	Baseline
	Potassium Permanganate Injections October 1, 2019 - October 10, 2019					
	4/15/20	600.31	3.70	596.61	140	-12.50
	3/10/21	600.31	4.25	596.06	NT	N/A
	3/30/21	600.31	4.10	596.21	NT	N/A
	4/14/21	600.31	4.13	596.18	95	-40.63
	5/20/21	600.31	4.32	595.99	NT	N/A
	6/11/21	600.31	4.40	595.91	NT	N/A
	7/1/21	600.31	4.60	595.71	150	-6.25
	8/25/21	600.31	4.10	596.21	NT	N/A
	9/22/21	600.31	3.35	596.96	NT	N/A
MW - 14	3/10/21		6.76		NT	N/A
	3/30/21		6.72		NT	N/A
	4/14/21		6.73		NT	N/A
	5/20/21		6.75		NT	N/A
	6/11/21		6.80		NT	N/A
	7/1/21		6.95		NT	N/A
	8/25/21		6.50		NT	N/A
	9/22/21		6.15		NT	N/A
MW - 15	3/10/21		5.42		NT	N/A
	3/30/21		5.32		NT	N/A
	4/14/21		5.34		NT	N/A
	5/20/21		5.40		NT	N/A
	6/11/21		5.60		NT	N/A
	7/1/21		5.60		NT	N/A
	8/25/21		5.18		NT	N/A
9/22/21		3.85		NT	N/A	

**Notes:**

1. NG = Not Gauged
2. ND = Non-Detect
3. NT = Not tested
4. N/A = Not Applicable
5. Water Levels measured from top of riser
6. Blue Shading = Result exceeds NY-TOGS-GA for TCE
7. **RED BOLDED** = Percent increase of TCE from Baseline
8. 7/16/19 Post Pilot Study and 10/24/19 Post Injection Data excluded because water levels were not collected during these events

**Table 6**  
**Historical Groundwater Monitoring and Sampling Data Summary**  
**MOD-PAC CORP.**

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	1,1-Dichloroethene (µg/L)	2-Butanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Trichloroethene (µg/L)	Vinyl chloride (µg/L)	Total VOCs (µg/L)	% Increase/Decrease TCE			
					<b>NY-TOGS-GA (µg/L)</b>				5	50	50	1	5	5	5	2	
MW - 3	2/5/18	600.71	5.05	595.66	ND	ND	ND	ND	80	14	280	13	387.0	Baseline			
	7/16/2019*	600.71	NG	NG	ND	ND	38	ND	ND	ND	ND	ND	38.0	-100.00			
					<b>Potassium Permanganate Injections October 1, 2019 - October 10, 2019</b>												
	10/24/19	600.71	NG	NG	ND	ND	ND	ND	30	3	220	ND	253.0	-21.43			
	4/15/20	600.71	5.54	595.17	ND	ND	6.40	ND	57	7.3	370	3.7	444.4	32.14			
	4/14/21	600.71	5.98	594.73	0.88	ND	ND	ND	82	8.8	340	5.6	440.5	21.43			
	7/1/21	600.71	6.30	594.41	2.0	ND	ND	0.41	140	16	400	8.1	566.5	42.86			
MW - 11	2/5/18	600.41	4.66	595.75	ND	ND	9.4	ND	3.1	2.9	40	5.6	61.0	Baseline			
	7/16/2019*	600.41	NG	NG	ND	ND	4.5	ND	14	25	20	9.8	73.3	-50.00			
					<b>Potassium Permanganate Injections October 1, 2019 - October 10, 2019</b>												
	10/24/19	600.41	NG	NG	ND	150	920	ND	ND	ND	ND	16	ND	1086.0	-60.00		
	4/15/20	600.41	5.27	595.14	ND	2.20	11	0.21	7	10	45	9	84.4	12.50			
	4/14/21	600.41	5.74	594.67	ND	ND	ND	ND	8	9.4	16	5.7	39.1	-60.00			
	7/1/21	600.41	6.00	594.41	0.35	ND	ND	0.25	13	17	47	10	87.6	17.50			
MW - 12	2/5/18	600.50	4.52	595.98	ND	ND	2.2	ND	ND	ND	0.44	ND	2.64	Baseline			
	7/16/2019*	600.50	NG	NG	ND	ND	3	ND	ND	ND	ND	ND	3.0	-100.00			
					<b>Potassium Permanganate Injections October 1, 2019 - October 10, 2019</b>												
	10/24/19	600.50	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-100.00		
	4/15/20	600.50	4.41	596.09	ND	ND	11	ND	ND	ND	ND	ND	11.0	-100.00			
	4/14/21	600.50	4.86	595.64	ND	ND	ND	ND	ND	ND	ND	ND	ND	-100.00			
	7/1/21	600.50	5.35	595.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	-100.00			
MW - 13	2/5/18	600.31	4.44	595.87	ND	ND	ND	ND	180	4.1	160	25	369.1	Baseline			
	7/16/2019*	600.31	NG	NG	ND	ND	ND	ND	400	3.9	78	56	537.9	-51.25			
					<b>Potassium Permanganate Injections October 1, 2019 - October 10, 2019</b>												
	10/24/19	600.31	NG	NG	ND	ND	28	ND	97	2	240	2	369.0	50.00			
	4/15/20	600.31	3.70	596.61	0.73	ND	3.2	ND	200	4.4	140	55	403.3	-12.50			
	4/14/21	600.31	4.13	596.18	0.69	ND	ND	ND	150	1.70	95	70	317.4	-40.63			
	7/1/21	600.31	4.60	595.71	1.50	ND	ND	0.18	210	3.90	150	88	453.6	-6.25			

**Notes:**

1. NG = Not Gauged
2. ND = Non-Detect
3. NT = Not tested
4. N/A = Not Applicable
5. Water Levels measured from top of riser
6. Blue Shading = Result exceeds NY-TOGS-GA for TCE
7. **RED BOLDED** = Percent increase of TCE from Baseline
8. \* = Sampling completed after initial Potassium Permanganate Injection Pilot Study (June 27 - 28, 2019)

## ATTACHMENT C

Field Notes

**MOD-PAC Corp., Buffalo, NY**  
**Sub-Slab Depressurization System (SSDS) Monthly Monitoring**

EA Representative: Eric Betzold  
Date of Inspection: July 1, 2021

**Area A**

Monthly Monitoring Checklist:

1. Pre-Carbon OVM Reading (ppm): 0.0
2. Post-Carbon OVM Reading (ppm): 0.0

Notes: Blower operating at 16 PSI.

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**Area B**

Monthly Monitoring Checklist:

1. OVM Reading (ppm): 0.0

Notes: Blower operating at 18 PSI.

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**Area C**

Monthly Monitoring Checklist:

1. EW-1C OVM Reading (ppm): 0.0
2. EW-2C OVM Reading (ppm): 0.0
3. EW-3C OVM Reading (ppm): 0.0

Notes: No deficiencies.

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**MOD-PAC Corp., Buffalo, NY**  
**Sub-Slab Depressurization System (SSDS) Monthly Monitoring**

EA Representative: Eric Betzold  
Date of Inspection: August 25, 2021

**Area A**

Monthly Monitoring Checklist:

1. Pre-Carbon OVM Reading (ppm): 0.0
2. Post-Carbon OVM Reading (ppm): 0.0

Notes: Blower operating at 18 PSI.

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**Area B**

Monthly Monitoring Checklist:

1. OVM Reading (ppm): 0.0

Notes: Blower operating at 20 PSI.

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**Area C**

Monthly Monitoring Checklist:

1. EW-1C OVM Reading (ppm): 0.0
2. EW-2C OVM Reading (ppm): 0.0
3. EW-3C OVM Reading (ppm): 0.0

Notes: No deficiencies.

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**MOD-PAC Corp., Buffalo, NY**  
**Sub-Slab Depressurization System (SSDS) Quarterly Monitoring**

EA Representative: Eric Betzold  
 Date of Inspection: 9/08/2021

**Area A**

Extraction Well Location	EW-1A	EW-2A	EW-3A	EW-4A	EW-5A	EW-6A	EW-7A	EW-8A	EW-9A	EW-10A
Magnehelic Pressure Gauge Reading (InH <sub>2</sub> O)	17	17	18	18	17	0	18	18	18	18

Vapor Monitoring Point Location	VMP-1A	VMP-2A	VMP-3A	VMP-4A	VMP-5A	VMP-7A	VMP-8A	VMP-9A
Manometer Reading (InH <sub>2</sub> O)	-0.091	-0.088	-0.075	-0.140	-0.086	-0.028	-0.190	-0.149

General Monitoring Checklist:

1. Pre-Carbon OVM Reading (ppm): 0.3
2. Post-Carbon OVM Reading (ppm): 0.0
3. Blower Gauge Reading in inches of water (InH<sub>2</sub>O): 16
4. Lubricate Blower fan bearing (Y/N): Y
5. Quarterly pre- and post-carbon Tedlar Bag samples taken (Y/N)? Y

General Comments (leaks, defective gauges/fans, positive pressure readings?): None

**Area B**

Extraction Well Location	EW-1B	EW-2B	EW-3B	EW-4B	EW-5B	EW-6B	EW-7B	EW-8B
Magnehelic Pressure Gauge Reading (InH <sub>2</sub> O)	20	21	22	23	22	22	21	21

Vapor Monitoring Point Location	VMP-1B	VMP-2B	VMP-3B	VMP-4B	VMP-5B	VMP-6B	VMP-7B
Manometer Reading (InH <sub>2</sub> O)	-0.045	-0.058	-0.285	-1.020	-0.034	-0.041	-0.060



General Monitoring Checklist:

1. OVM Reading (ppm): 0.0
2. Blower Gauge Reading in inches of water (InH<sub>2</sub>O): 19
3. Lubricate Blower fan bearing (Y/N): Y

General Comments (leaks, defective gauges/fans, positive pressure readings?):

EW-2B trench has few cracks present. However, there are no leaks present. EA recommends to re-epoxy the cracks and the missing small chunk of concrete. Same is recommended for EW-8 trench.

**Area C**

Extraction Well Location	EW-1C	EW-2C	EW-3C
Magnehelic Pressure Gauge Reading (InH <sub>2</sub> O)	29	31	30
OVM Reading (ppm)	0.0	0.0	0.0

Vapor Monitoring Point Location	VMP-1C	VMP-2C	VMP-3C	VMP-4C	VMP-10C	VMP-11C
Manometer Reading (InH <sub>2</sub> O)	-0.049	-0.042	-0.040	-0.075	-0.066	-0.022

General Comments (leaks, defective gauges/fans, positive pressure readings?):

Stress crack noted at EW-3c vapor trench.



**ATTACHMENT D**

Analytical Laboratory Reports



## ANALYTICAL REPORT

Lab Number:	L2148116
Client:	Environmental Advantage, Inc. 3636 North Buffalo Road Orchard Park, NY 14127
ATTN:	Mark Hanna
Phone:	(716) 667-3130
Project Name:	Q3 2021 SSDS MONITORING
Project Number:	01304
Report Date:	09/13/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** Q3 2021 SSDS MONITORING**Project Number:** 01304**Lab Number:** L2148116**Report Date:** 09/13/21

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2148116-01	AREA A-PRE(090821)	SOIL_VAPOR	MPE BUFFALO NY	09/08/21 11:10	09/08/21
L2148116-02	AREA A-POST(090821)	SOIL_VAPOR	MPE BUFFALO NY	09/08/21 11:05	09/08/21

**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

### 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:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

### Case Narrative (continued)

Volatile Organics in Air

L2148116-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2148116-01, -02: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

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:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 09/13/21

**AIR**

**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**SAMPLE RESULTS**

Lab ID: L2148116-01 D  
 Client ID: AREA A-PRE(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:10  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 09/12/21 22:10  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.534	0.286	--	2.64	1.41	--		1.429
Chloromethane	ND	0.286	--	ND	0.591	--		1.429
Freon-114	ND	0.286	--	ND	2.00	--		1.429
Vinyl chloride	ND	0.286	--	ND	0.731	--		1.429
1,3-Butadiene	ND	0.286	--	ND	0.633	--		1.429
Bromomethane	ND	0.286	--	ND	1.11	--		1.429
Chloroethane	ND	0.286	--	ND	0.755	--		1.429
Ethanol	26.4	7.14	--	49.7	13.5	--		1.429
Vinyl bromide	ND	0.286	--	ND	1.25	--		1.429
Acetone	16.1	1.43	--	38.2	3.40	--		1.429
Trichlorofluoromethane	1.08	0.286	--	6.07	1.61	--		1.429
Isopropanol	15.8	0.714	--	38.8	1.76	--		1.429
1,1-Dichloroethene	ND	0.286	--	ND	1.13	--		1.429
Tertiary butyl Alcohol	0.745	0.714	--	2.26	2.16	--		1.429
Methylene chloride	0.754	0.714	--	2.62	2.48	--		1.429
3-Chloropropene	ND	0.286	--	ND	0.895	--		1.429
Carbon disulfide	1.23	0.286	--	3.83	0.891	--		1.429
Freon-113	ND	0.286	--	ND	2.19	--		1.429
trans-1,2-Dichloroethene	ND	0.286	--	ND	1.13	--		1.429
1,1-Dichloroethane	ND	0.286	--	ND	1.16	--		1.429
Methyl tert butyl ether	ND	0.286	--	ND	1.03	--		1.429
2-Butanone	0.857	0.714	--	2.53	2.11	--		1.429
cis-1,2-Dichloroethene	2.55	0.286	--	10.1	1.13	--		1.429



**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**SAMPLE RESULTS**

Lab ID: L2148116-01 D  
 Client ID: AREA A-PRE(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:10  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.714	--	ND	2.57	--		1.429
Chloroform	6.46	0.286	--	31.5	1.40	--		1.429
Tetrahydrofuran	0.727	0.714	--	2.14	2.11	--		1.429
1,2-Dichloroethane	ND	0.286	--	ND	1.16	--		1.429
n-Hexane	1.18	0.286	--	4.16	1.01	--		1.429
1,1,1-Trichloroethane	ND	0.286	--	ND	1.56	--		1.429
Benzene	0.862	0.286	--	2.75	0.914	--		1.429
Carbon tetrachloride	ND	0.286	--	ND	1.80	--		1.429
Cyclohexane	ND	0.286	--	ND	0.984	--		1.429
1,2-Dichloropropane	ND	0.286	--	ND	1.32	--		1.429
Bromodichloromethane	ND	0.286	--	ND	1.92	--		1.429
1,4-Dioxane	ND	0.286	--	ND	1.03	--		1.429
Trichloroethene	104	0.286	--	559	1.54	--		1.429
2,2,4-Trimethylpentane	ND	0.286	--	ND	1.34	--		1.429
Heptane	0.484	0.286	--	1.98	1.17	--		1.429
cis-1,3-Dichloropropene	ND	0.286	--	ND	1.30	--		1.429
4-Methyl-2-pentanone	ND	0.714	--	ND	2.93	--		1.429
trans-1,3-Dichloropropene	ND	0.286	--	ND	1.30	--		1.429
1,1,2-Trichloroethane	ND	0.286	--	ND	1.56	--		1.429
Toluene	9.71	0.286	--	36.6	1.08	--		1.429
2-Hexanone	ND	0.286	--	ND	1.17	--		1.429
Dibromochloromethane	ND	0.286	--	ND	2.44	--		1.429
1,2-Dibromoethane	ND	0.286	--	ND	2.20	--		1.429
Tetrachloroethene	0.336	0.286	--	2.28	1.94	--		1.429
Chlorobenzene	ND	0.286	--	ND	1.32	--		1.429
Ethylbenzene	2.22	0.286	--	9.64	1.24	--		1.429



**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**SAMPLE RESULTS**

Lab ID: L2148116-01 D  
 Client ID: AREA A-PRE(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:10  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	11.2	0.571	--	48.6	2.48	--		1.429
Bromoform	ND	0.286	--	ND	2.96	--		1.429
Styrene	0.304	0.286	--	1.29	1.22	--		1.429
1,1,2,2-Tetrachloroethane	ND	0.286	--	ND	1.96	--		1.429
o-Xylene	4.63	0.286	--	20.1	1.24	--		1.429
4-Ethyltoluene	1.22	0.286	--	6.00	1.41	--		1.429
1,3,5-Trimethylbenzene	2.07	0.286	--	10.2	1.41	--		1.429
1,2,4-Trimethylbenzene	8.62	0.286	--	42.4	1.41	--		1.429
Benzyl chloride	ND	0.286	--	ND	1.48	--		1.429
1,3-Dichlorobenzene	ND	0.286	--	ND	1.72	--		1.429
1,4-Dichlorobenzene	ND	0.286	--	ND	1.72	--		1.429
1,2-Dichlorobenzene	ND	0.286	--	ND	1.72	--		1.429
1,2,4-Trichlorobenzene	ND	0.286	--	ND	2.12	--		1.429
Hexachlorobutadiene	ND	0.286	--	ND	3.05	--		1.429

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	107		60-140



**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**SAMPLE RESULTS**

Lab ID: L2148116-02  
 Client ID: AREA A-POST(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:05  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 09/12/21 22:49  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.432	0.200	--	2.14	0.989	--		1
Chloromethane	0.273	0.200	--	0.564	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	34.0	5.00	--	64.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	17.0	1.00	--	40.4	2.38	--		1
Trichlorofluoromethane	0.726	0.200	--	4.08	1.12	--		1
Isopropanol	39.0	0.500	--	95.9	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	2.95	0.500	--	8.94	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	4.01	0.200	--	12.5	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	0.212	0.200	--	0.841	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	3.46	0.200	--	13.7	0.793	--		1



**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

### SAMPLE RESULTS

Lab ID: L2148116-02  
 Client ID: AREA A-POST(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:05  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	8.74	0.200	--	42.7	0.977	--		1
Tetrahydrofuran	1.08	0.500	--	3.19	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	17.4	0.200	--	61.3	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.71	0.200	--	5.46	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.374	0.200	--	1.29	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	0.237	0.200	--	1.27	1.07	--		1
2,2,4-Trimethylpentane	0.294	0.200	--	1.37	0.934	--		1
Heptane	0.912	0.200	--	3.74	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.862	0.500	--	3.53	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	16.5	0.200	--	62.2	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	3.86	0.200	--	16.8	0.869	--		1



**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**SAMPLE RESULTS**

Lab ID: L2148116-02  
 Client ID: AREA A-POST(090821)  
 Sample Location: MPE BUFFALO NY

Date Collected: 09/08/21 11:05  
 Date Received: 09/08/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	18.2	0.400	--	79.1	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.290	0.200	--	1.23	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	7.21	0.200	--	31.3	0.869	--		1
4-Ethyltoluene	1.68	0.200	--	8.26	0.983	--		1
1,3,5-Trimethylbenzene	2.76	0.200	--	13.6	0.983	--		1
1,2,4-Trimethylbenzene	10.8	0.200	--	53.1	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	108		60-140
chlorobenzene-d5	113		60-140



Project Name: Q3 2021 SSDS MONITORING

Lab Number: L2148116

Project Number: 01304

Report Date: 09/13/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/12/21 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1545460-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: Q3 2021 SSDS MONITORING

Lab Number: L2148116

Project Number: 01304

Report Date: 09/13/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/12/21 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1545460-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: Q3 2021 SSDS MONITORING

Lab Number: L2148116

Project Number: 01304

Report Date: 09/13/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/12/21 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1545460-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Q3 2021 SSDS MONITORING

**Project Number:** 01304

**Lab Number:** L2148116

**Report Date:** 09/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1545460-3								
Dichlorodifluoromethane	89		-		70-130	-		
Chloromethane	100		-		70-130	-		
Freon-114	97		-		70-130	-		
Vinyl chloride	85		-		70-130	-		
1,3-Butadiene	94		-		70-130	-		
Bromomethane	83		-		70-130	-		
Chloroethane	88		-		70-130	-		
Ethanol	88		-		40-160	-		
Vinyl bromide	99		-		70-130	-		
Acetone	74		-		40-160	-		
Trichlorofluoromethane	93		-		70-130	-		
Isopropanol	78		-		40-160	-		
1,1-Dichloroethene	86		-		70-130	-		
Tertiary butyl Alcohol	79		-		70-130	-		
Methylene chloride	103		-		70-130	-		
3-Chloropropene	96		-		70-130	-		
Carbon disulfide	113		-		70-130	-		
Freon-113	120		-		70-130	-		
trans-1,2-Dichloroethene	89		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		
Methyl tert butyl ether	103		-		70-130	-		
2-Butanone	106		-		70-130	-		
cis-1,2-Dichloroethene	94		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Q3 2021 SSDS MONITORING

**Lab Number:** L2148116

**Project Number:** 01304

**Report Date:** 09/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1545460-3								
Ethyl Acetate	96		-		70-130	-		
Chloroform	93		-		70-130	-		
Tetrahydrofuran	103		-		70-130	-		
1,2-Dichloroethane	91		-		70-130	-		
n-Hexane	94		-		70-130	-		
1,1,1-Trichloroethane	107		-		70-130	-		
Benzene	95		-		70-130	-		
Carbon tetrachloride	103		-		70-130	-		
Cyclohexane	94		-		70-130	-		
1,2-Dichloropropane	106		-		70-130	-		
Bromodichloromethane	98		-		70-130	-		
1,4-Dioxane	95		-		70-130	-		
Trichloroethene	103		-		70-130	-		
2,2,4-Trimethylpentane	98		-		70-130	-		
Heptane	116		-		70-130	-		
cis-1,3-Dichloropropene	115		-		70-130	-		
4-Methyl-2-pentanone	118		-		70-130	-		
trans-1,3-Dichloropropene	99		-		70-130	-		
1,1,2-Trichloroethane	114		-		70-130	-		
Toluene	99		-		70-130	-		
2-Hexanone	121		-		70-130	-		
Dibromochloromethane	112		-		70-130	-		
1,2-Dibromoethane	119		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Q3 2021 SSDS MONITORING

**Project Number:** 01304

**Lab Number:** L2148116

**Report Date:** 09/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1545460-3								
Tetrachloroethene	111		-		70-130	-		
Chlorobenzene	111		-		70-130	-		
Ethylbenzene	111		-		70-130	-		
p/m-Xylene	112		-		70-130	-		
Bromoform	127		-		70-130	-		
Styrene	119		-		70-130	-		
1,1,2,2-Tetrachloroethane	111		-		70-130	-		
o-Xylene	115		-		70-130	-		
4-Ethyltoluene	116		-		70-130	-		
1,3,5-Trimethylbenzene	119		-		70-130	-		
1,2,4-Trimethylbenzene	124		-		70-130	-		
Benzyl chloride	118		-		70-130	-		
1,3-Dichlorobenzene	131	Q	-		70-130	-		
1,4-Dichlorobenzene	126		-		70-130	-		
1,2-Dichlorobenzene	127		-		70-130	-		
1,2,4-Trichlorobenzene	136	Q	-		70-130	-		
Hexachlorobutadiene	118		-		70-130	-		

**Project Name:** Q3 2021 SSDS MONITORING**Lab Number:** L2148116**Project Number:** 01304**Report Date:** 09/13/21**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

NA                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2148116-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2148116-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2148116-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2148116-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)

**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

## 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: Data Usability Report



**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

#### 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.

**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'.

**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.

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.)

**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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

**Data Qualifiers**

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.

**Project Name:** Q3 2021 SSDS MONITORING  
**Project Number:** 01304

**Lab Number:** L2148116  
**Report Date:** 09/13/21

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**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

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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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **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, **LCHAT 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), **EPA 600/4-81-045:** PCB-Oil.

**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**

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





## ANALYTICAL REPORT

Lab Number:	L2136084
Client:	Environmental Advantage, Inc. 3636 North Buffalo Road Orchard Park, NY 14127
ATTN:	Mark Hanna
Phone:	(716) 667-3130
Project Name:	JULY 2021 SMP GW SAMPLING
Project Number:	01304
Report Date:	07/26/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2136084-01	MW-12 (070121)	WATER	MPC BUFFALO, NY	07/01/21 11:30	07/02/21
L2136084-02	MW-11 (070121)	WATER	MPC BUFFALO, NY	07/01/21 12:40	07/02/21
L2136084-03	MW-3 (070121)	WATER	MPC BUFFALO, NY	07/01/21 13:25	07/02/21
L2136084-04	MW-13 (070121)	WATER	MPC BUFFALO, NY	07/01/21 13:50	07/02/21

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

### 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.

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**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**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:  Tiffani Morrissey

Title: Technical Director/Representative

Date: 07/26/21

# ORGANICS

# VOLATILES

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-01  
 Client ID: MW-12 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 11:30  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/11/21 23:54  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

**Lab ID:** L2136084-01  
**Client ID:** MW-12 (070121)  
**Sample Location:** MPC BUFFALO, NY

**Date Collected:** 07/01/21 11:30  
**Date Received:** 07/02/21  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	123		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-02  
 Client ID: MW-11 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 12:40  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/11/21 23:31  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.25	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	10		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.35	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	17		ug/l	2.5	0.70	1
Trichloroethene	47		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

**Lab ID:** L2136084-02  
**Client ID:** MW-11 (070121)  
**Sample Location:** MPC BUFFALO, NY

**Date Collected:** 07/01/21 12:40  
**Date Received:** 07/02/21  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	13		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	120		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-03 D2  
 Client ID: MW-3 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 13:25  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/13/21 22:56  
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	400		ug/l	5.0	1.8	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	127		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING**Lab Number:** L2136084**Project Number:** 01304**Report Date:** 07/26/21**SAMPLE RESULTS**

Lab ID: L2136084-03 D

Date Collected: 07/01/21 13:25

Client ID: MW-3 (070121)

Date Received: 07/02/21

Sample Location: MPC BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 07/11/21 23:08

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	0.41	J	ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	8.1		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	2.0		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	16		ug/l	5.0	1.4	2
Trichloroethene	410	E	ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-03 D  
 Client ID: MW-3 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 13:25  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	140		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-04  
 Client ID: MW-13 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 13:50  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/11/21 22:45  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.18	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	88		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	1.5		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	3.9		ug/l	2.5	0.70	1
Trichloroethene	150		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

**Lab ID:** L2136084-04  
**Client ID:** MW-13 (070121)  
**Sample Location:** MPC BUFFALO, NY

**Date Collected:** 07/01/21 13:50  
**Date Received:** 07/02/21  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	260	E	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	121		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**SAMPLE RESULTS**

Lab ID: L2136084-04 D  
 Client ID: MW-13 (070121)  
 Sample Location: MPC BUFFALO, NY

Date Collected: 07/01/21 13:50  
 Date Received: 07/02/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/12/21 10:55  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	210		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/13/21 19:51  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1523079-10					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/13/21 19:51  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1523079-10					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/13/21 19:51  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1523079-10					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	122		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/11/21 16:06  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1523079-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/11/21 16:06  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1523079-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/11/21 16:06  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1523079-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	115		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/12/21 09:34  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1523377-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/12/21 09:34  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1523377-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 07/12/21 09:34  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1523377-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** JULY 2021 SMP GW SAMPLING

**Project Number:** 01304

**Lab Number:** L2136084

**Report Date:** 07/26/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1523079-3 WG1523079-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	95		96		70-130	1		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	110		100		70-130	10		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	90		99		70-130	10		20
Tetrachloroethene	120		120		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	150		150		62-150	0		20
1,2-Dichloroethane	92		100		70-130	8		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		110		67-130	10		20
trans-1,3-Dichloropropene	84		90		70-130	7		20
cis-1,3-Dichloropropene	95		100		70-130	5		20
Bromoform	76		81		54-136	6		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		110		70-130	0		20
Toluene	96		100		70-130	4		20
Ethylbenzene	96		99		70-130	3		20
Chloromethane	99		94		64-130	5		20
Bromomethane	110		110		39-139	0		20
Vinyl chloride	110		100		55-140	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: JULY 2021 SMP GW SAMPLING

Lab Number: L2136084

Project Number: 01304

Report Date: 07/26/21

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: WG1523079-3 WG1523079-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	110		120		70-130	9		20
1,3-Dichlorobenzene	120		110		70-130	9		20
1,4-Dichlorobenzene	120		110		70-130	9		20
Methyl tert butyl ether	88		97		63-130	10		20
p/m-Xylene	105		110		70-130	5		20
o-Xylene	105		110		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	94		110		58-148	16		20
Carbon disulfide	94		96		51-130	2		20
2-Butanone	120		100		63-138	18		20
4-Methyl-2-pentanone	78		85		59-130	9		20
2-Hexanone	86		94		57-130	9		20
Bromochloromethane	130		140	Q	70-130	7		20
1,2-Dibromoethane	100		120		70-130	18		20
1,2-Dibromo-3-chloropropane	88		95		41-144	8		20
Isopropylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** JULY 2021 SMP GW SAMPLING

**Project Number:** 01304

**Lab Number:** L2136084

**Report Date:** 07/26/21

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: WG1523079-3 WG1523079-4								
1,2,4-Trichlorobenzene	110		110		70-130	0		20
Methyl Acetate	94		110		70-130	16		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	154		144		56-162	7		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	92		95		70-130
4-Bromofluorobenzene	88		88		70-130
Dibromofluoromethane	113		109		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: JULY 2021 SMP GW SAMPLING

Lab Number: L2136084

Project Number: 01304

Report Date: 07/26/21

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: WG1523079-8 WG1523079-9								
Methylene chloride	93		89		70-130	4		20
1,1-Dichloroethane	92		88		70-130	4		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	99		110		63-132	11		20
1,2-Dichloropropane	100		99		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	95		93		70-130	2		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	96		97		75-130	1		20
Trichlorofluoromethane	130		120		62-150	8		20
1,2-Dichloroethane	100		98		70-130	2		20
1,1,1-Trichloroethane	110		93		67-130	17		20
Bromodichloromethane	100		98		67-130	2		20
trans-1,3-Dichloropropene	85		85		70-130	0		20
cis-1,3-Dichloropropene	92		91		70-130	1		20
Bromoform	86		74		54-136	15		20
1,1,2,2-Tetrachloroethane	110		96		67-130	14		20
Benzene	100		98		70-130	2		20
Toluene	90		90		70-130	0		20
Ethylbenzene	89		92		70-130	3		20
Chloromethane	91		92		64-130	1		20
Bromomethane	120		110		39-139	9		20
Vinyl chloride	91		88		55-140	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: JULY 2021 SMP GW SAMPLING

Lab Number: L2136084

Project Number: 01304

Report Date: 07/26/21

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: WG1523079-8 WG1523079-9								
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	95		98		61-145	3		20
trans-1,2-Dichloroethene	98		98		70-130	0		20
Trichloroethene	100		97		70-130	3		20
1,2-Dichlorobenzene	120		110		70-130	9		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	90		84		63-130	7		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	99		99		70-130	0		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	90		90		58-148	0		20
Carbon disulfide	91		89		51-130	2		20
2-Butanone	100		140	Q	63-138	33	Q	20
4-Methyl-2-pentanone	89		96		59-130	8		20
2-Hexanone	100		100		57-130	0		20
Bromochloromethane	130		130		70-130	0		20
1,2-Dibromoethane	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	100		96		41-144	4		20
Isopropylbenzene	100		92		70-130	8		20
1,2,3-Trichlorobenzene	140	Q	100		70-130	33	Q	20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** JULY 2021 SMP GW SAMPLING

**Project Number:** 01304

**Lab Number:** L2136084

**Report Date:** 07/26/21

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1523079-8 WG1523079-9								
1,2,4-Trichlorobenzene	120		110		70-130	9		20
Methyl Acetate	96		93		70-130	3		20
Cyclohexane	92		94		70-130	2		20
1,4-Dioxane	128		118		56-162	8		20
Freon-113	110		100		70-130	10		20
Methyl cyclohexane	98		97		70-130	1		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	98		102		70-130
Toluene-d8	96		96		70-130
4-Bromofluorobenzene	92		86		70-130
Dibromofluoromethane	116		111		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: JULY 2021 SMP GW SAMPLING

Lab Number: L2136084

Project Number: 01304

Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1523377-3 WG1523377-4								
Methylene chloride	91		94		70-130	3		20
1,1-Dichloroethane	92		98		70-130	6		20
Chloroform	92		96		70-130	4		20
Carbon tetrachloride	92		94		63-132	2		20
1,2-Dichloropropane	88		94		70-130	7		20
Dibromochloromethane	85		87		63-130	2		20
1,1,2-Trichloroethane	79		84		70-130	6		20
Tetrachloroethene	83		89		70-130	7		20
Chlorobenzene	87		90		75-130	3		20
Trichlorofluoromethane	93		97		62-150	4		20
1,2-Dichloroethane	97		100		70-130	3		20
1,1,1-Trichloroethane	85		90		67-130	6		20
Bromodichloromethane	88		92		67-130	4		20
trans-1,3-Dichloropropene	85		89		70-130	5		20
cis-1,3-Dichloropropene	89		93		70-130	4		20
Bromoform	75		81		54-136	8		20
1,1,2,2-Tetrachloroethane	95		100		67-130	5		20
Benzene	90		95		70-130	5		20
Toluene	88		91		70-130	3		20
Ethylbenzene	88		93		70-130	6		20
Chloromethane	110		110		64-130	0		20
Bromomethane	<b>150</b>	Q	<b>160</b>	Q	39-139	6		20
Vinyl chloride	98		100		55-140	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: JULY 2021 SMP GW SAMPLING

Project Number: 01304

Lab Number: L2136084

Report Date: 07/26/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1523377-3 WG1523377-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	84		88		61-145	5		20
trans-1,2-Dichloroethene	90		92		70-130	2		20
Trichloroethene	78		84		70-130	7		20
1,2-Dichlorobenzene	85		88		70-130	3		20
1,3-Dichlorobenzene	87		90		70-130	3		20
1,4-Dichlorobenzene	86		88		70-130	2		20
Methyl tert butyl ether	95		100		63-130	5		20
p/m-Xylene	85		90		70-130	6		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	88		87		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	130		140		36-147	7		20
Acetone	100		87		58-148	14		20
Carbon disulfide	96		97		51-130	1		20
2-Butanone	82		86		63-138	5		20
4-Methyl-2-pentanone	75		82		59-130	9		20
2-Hexanone	82		92		57-130	11		20
Bromochloromethane	91		95		70-130	4		20
1,2-Dibromoethane	82		90		70-130	9		20
1,2-Dibromo-3-chloropropane	70		83		41-144	17		20
Isopropylbenzene	88		93		70-130	6		20
1,2,3-Trichlorobenzene	80		84		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** JULY 2021 SMP GW SAMPLING

**Project Number:** 01304

**Lab Number:** L2136084

**Report Date:** 07/26/21

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1523377-3 WG1523377-4								
1,2,4-Trichlorobenzene	83		86		70-130	4		20
Methyl Acetate	86		99		70-130	14		20
Cyclohexane	88		96		70-130	9		20
1,4-Dioxane	78		92		56-162	16		20
Freon-113	96		100		70-130	4		20
Methyl cyclohexane	90		94		70-130	4		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	111		112		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	103		99		70-130
Dibromofluoromethane	108		104		70-130

**Project Name:** JULY 2021 SMP GW SAMPLING**Lab Number:** L2136084**Project Number:** 01304**Report Date:** 07/26/21**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2136084-01A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-01B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-01C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-02A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-02B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-02C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-03A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-03B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-03C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-04A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-04B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2136084-04C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

## 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:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

#### 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.

**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'.

**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.

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.)

**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 Identified Compounds (TICs).
- 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.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

**Data Qualifiers**

- 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.

**Project Name:** JULY 2021 SMP GW SAMPLING  
**Project Number:** 01304

**Lab Number:** L2136084  
**Report Date:** 07/26/21

## 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

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**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

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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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **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, **LCHAT 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), **EPA 600/4-81-045:** PCB-Oil.

**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**

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

