Periodic Review Report

2424 Hamburg Turnpike Site
BCP Site Number: C915296
Lackawanna, New York

May 2022
Revised July 2022

0345-021-001

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PERIODIC REVIEW REPORT

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Prepared for:

2424 Hamburg Turnpike, LLC
&
MLG Contracting Inc.

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BENCHMARK TURNKEY

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1.0 EXECUTIVE SUMMARY

The 2424 Hamburg Turnpike Site (C915296) was a former automobile filling and service station. Prior to implementation of interim and final remedial measures the Site exhibited localized volatile organic contaminants (VOCs) in groundwater, localized semi-volatile organic contaminants (SVOCs) in soil, and metals contaminants in soil. The Site has had two documented petroleum spills prior to entering the BCP program. Remedial activities completed prior to NYSDEC issuance of a Certificate of Completion in December 2019 included: removal of hydraulic lifts, petroleum underground storage tanks (USTs), and petroleum piping, and petroleum-impacted soil; and installation of a dual-phase extraction (DPE) system. The DPE system has removed over 5,800 pounds of VOCs from the soil and groundwater since system start-up in November 2019. It appears that the DPE system is effectively removing residual impacts. The Site is in compliance with the SMP, engineering, and institutional control requirements.

2.0 INTRODUCTION

Benchmark Civil/Environmental Engineering and Geology, PLLC (Benchmark), in association with TurnKey Environmental Restoration, LLC (TurnKey) have prepared this Periodic Review Report (PRR), on behalf of 2424 Hamburg Turnpike, LLC and MLG Contracting Inc. to summarize the post-COC status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C915296, located in the City of Lackawanna, Erie County, New York (Site; see Figure 1).

This PRR has been prepared for the 2424 Hamburg Turnpike Site in accordance with NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (May 2010). The NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been completed for the Site (see Appendix A). This PRR and the associated inspection forms have been completed for the April 24, 2021to April 24, 2022 reporting period.

2.1 Site Background

The Site is located at 2424 Hamburg Turnpike, in the City of Lackawanna, County of Erie, New York and is identified as S.B.L No. 141.59-5-2 on the Erie County Tax Map. The 1.04-acre BCP Site is currently unoccupied with a vacant commercial building, bound by an active gasoline station to the north, a retail store to the south, vacant land to the east and Hamburg Turnpike (aka NY State Route 5) with vacant industrial land across Route 5 to the west (see Figure 2).

The Site was historically used as an automobile filling and service station (Stop-N-Gas) beginning in at least 1957 when three 10,000-gallon underground storage tanks (USTs) were installed on-site. Petroleum bulk storage (PBS) records indicate that the three USTs were closed/removed in 1994. Subsequent to the automobile filling and service station operations, the Site operated as a retail store. Historic Sanborn maps and aerial photographs indicate that prior to the current on-site development, the Site was vacant land from at least 1926 through at least 1951.

2.2 Remedial History

After acceptance into the NYS BCP in November 2015, a Remedial Investigation/ Alternatives Analysis (RI/AA) Work Plan and a Work Plan for Interim Remedial Measures were prepared and submitted to the NYSDEC for review and approval. Interim Remedial Measures (IRM) activities were completed to address the removal of seven hydraulic lifts; excavation of

grossly contaminated soil/fill; groundwater management; and excavation backfilling. A Remedial Action Work Plan (RAWP) was prepared and approved by the NYSDEC detailing the removal of petroleum piping, installation of a dual-phase extraction (DPE) system, and installation of site-wide cover system. The cleanup was successful in achieving the remedial objectives for the Site. The Site Management Plan (SMP) and Final Engineering Report (FER) were approved by the Department in December 2019. The NYSDEC issued a COC for the Site on December 24, 2019.

3.0 SITE OVERVIEW

Previous investigations identified environmental contamination on-Site that required remediation. 2424 Hamburg Turnpike, LLC entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC to remediate the Site. BCP investigations and remediation were completed between 2015 and 2019.

The remedial activities included:

- Removal and disposal of seven in-ground lifts from the former automotive repair building.
- Excavation and off-site disposal of non-hazardous soil/fill exceeding the Part 375 Commercial Soil Cleanup Objectives (SCOs) encountered during in-ground lift removal activities.
- Demolition of the on-Site shed located in the southeast corner of the site, and demolition of the elevated concrete floor slabs located north of the shed and at the northern portion of the site.
- Excavation and off-site disposal of petroleum piping and non-hazardous soil/fill exceeding the Part 375 Commercial SCOs between the former tank field and the fuel dispensing islands.
- Installation of a dual-phase extraction (DPE) system to mitigate remaining contamination within the subsurface soil/fill and the groundwater.
- Replacement of existing exterior asphalt/concrete cover with a new primarily asphalt pavement cover over approximately 0.73 acres.
- Placement of a vegetated soil cover with a minimum of 12 inches of imported borrow soil meeting Part 375 Commercial SCOs over approximately 0.3 acres.
- And replacement of approximately 2,500 square feet of 6-inch-thick reinforced concrete floor in the garage bay of the building

Documentation of the completed remedial action activities described above are provided in the FER.

Remedial activities were completed in October 2019. The FER and SMP for the Site were approved by the Department in December 2019. The Certificate of Completion (COC) was issued for the Site on December 24, 2019. A Change of Use (COU) form was signed and submitted to the Department on March 8, 2022, notifying the Department of the change in ownership and transferring the COC. A copy of the COU form is included in Appendix A. 2424 Hamburg Turnpike, LLC sold the Site on March 16, 2022 to MLG Contracting Inc. MLG Contracting hired Neth & Sons, Inc. who obtained a permit to replace the roof from the City of Lackawanna during this reporting period. The permit and planned scope of work did not include intrusive work during this reporting period and did not involve removal or disruption of the cover system. We have requested a copy of the permit, however the contractor has not provided it as of the date of this PRR.

4.0 REMEDY PERFORMANCE

The Site is in compliance with the SMP. The cover system is maintained in accordance with the approved SMP. The completed IC/EC Certification form and site photographs are included in Appendix A and Appendix B, respectively.

Post-remedial inspections, groundwater monitoring, and operation and maintenance of the DPE system have been completed at the Site. DPE influent air analytical and DPE groundwater analytical results used for mass removal calculations are summarized on Table 1.

Groundwater sample analytical results are summarized on Table 2, with representative groundwater isopotential shown on Figures 3 for the associated sampling event. Laboratory analytical data reports are provided electronically in Appendix C.

5.0 SITE MANAGEMENT PLAN

The SMP was prepared for the Site and approved by the Department in December 2019. The SMP includes an Institutional and Engineering Control (IC/EC) Plan, Operation, Monitoring and Maintenance (OM&M) Plan, an Excavation Work Plan (EWP), and a copy of the Environmental Easements. A brief description of the components of the SMP is presented below.

5.1 Operation, Monitoring and Maintenance Plan

The OM&M Plan addresses three major remedial components: the DPE system; groundwater monitoring; and the annual inspection & certification.

5.1.1 DPE System

The DPE system is comprised of 14 DPE wells, 2-inch diameter HDPE conveyance piping, and the DPE remedial system. The DPE system extracts soil vapor and groundwater. The soil vapor is discharged through a stack at the top of the building. The groundwater is treated with a carbon filter and discharged to the publicly operated treatment works (POTW) in accordance with the sewer discharge permit. A copy of the current sewer discharge permit and sampling results from this reporting period are included in Appendix D.

Installation of the DPE system was completed between August and September 2019. System startup and optimization was completed between November and December 2019.

Routine DPE system monitoring was completed during the reporting period, including field measurements of system soil vapor influent air with photoionization detector (PID), vacuum readings on the DPE wells, effluent water flow meter readings, and routine system maintenance.

DPE System Operation

The DPE system has been operating since November 8, 2019, with one major shutdown for the winter (December 22, 2020 through April 19, 2021). Since startup, a total of 5,848 pounds of vapor-phase volatile organic carbons (VOCs) has been removed from the shallow vadose zone. Additionally, approximately 1,247,000 gallons of groundwater containing approximately 39 pounds of aqueous-phase VOCs has been removed and treated (see Table 1). The primary purpose of the liquid phase removal is to depress the water table slightly and expose the petroleum "smear zone" for vacuum extraction. The carbon that treats the groundwater was replaced on June 16, 2021 because of flow restrictions and the carbon recycling documentation is provided in Appendix E.

The sum of the air phase hydrocarbon (APH) soil gas sample results provided in Table 1 in micrograms per meter cubed (ug/m^3) is divided by the PID reading collected during the sampling, resulting in a correction factor that is used until the next influent soil gas sample is collected. The correction factor is multiplied by the PID reading resulting in a corrected concentration. This corrected concentration is multiplied by a flow rate and time resulting mass. Table 3 provides a Summary of VOC mass removal from the vapor phase of the DPE system.

A graph of the accumulative mass removed VS time is provided in Figure 4. As depicted in Figure 4 and Table 3, the DPE system mass removal rate dropped by more than 50% in December 2019 and continued to drop and maintain low PID readings and mass removal rates into June 2020. During this time, the DPE system was removing less than two pounds of VOCs per day on average. This also corresponds to cold and wet seasonal conditions when the shallow water table rises, and ground temperatures are low. The DPE system mass removal rate slowed to less than two pounds per day again in October 2020. Based on trends observed from December 2019 through June 2020 a request to temporarily shut down the system for the winter was submitted to the Department and was approved on December 21, 2020. The DPE system was shut down from December 22, 2020 through April 19, 2021. The DPE system was not shut down in December 2021 in an attempt to achieve conditions warranting permanent termination of DPE operations. However, based upon recent sampling data the system will continue to operate with adjustments described later in this report. The DPE system works well at this site in seasonally dry and warm conditions when impacted soil vapor is effectively being extracted from the shallow vadose zone, as evident from the cumulative mass of VOCs removed thus far. Table 4 provides a summary of the PID readings from individual DPE wells. The DPE well PID readings are consistent with the system influent PID readings and have decreased over time. The system was not modified during this reporting period.

5.1.2 Groundwater Monitoring

Groundwater monitoring has been completed annually since receiving the COC in December 2019. Groundwater monitoring was completed on November 16, 2021 for this reporting period. MW-1 could not be located during 2020 groundwater monitoring activities. Prior to the 2021 groundwater monitoring event monitoring well MW-1 was located less than an inch below the surface using a GPS and metal detector. Groundwater monitoring logs are provided in Appendix F. Groundwater analytical results were submitted to EQuIS on April 13, 2022.

Groundwater analytical results are summarized on Table 2 and laboratory analytical data reports are provided in Appendix C. Analytical results show a decrease in many VOC compounds (Benzene, Ethylbenzene, Isopropylbenzene, and Total Xylenes) at MW-2 since last year's sampling event. VOC concentrations at MW-2 remain higher than concentration before completion of the IRMs and remedial actions. The elevated concentrations at MW-2 may be due to the DPE system drawing groundwater impacts past MW-2 into DPE-1 and DPE-10 as depicted in Figure 3. Additionally, the lab mistakenly analyzed the sample for additional analytes

from the CP-51 list VOCs in addition to the TCL list VOCs required by the SMP, which added additional compounds and associated concentrations thereof to the total VOC sum. If the CP-51 list VOCs were not included there would have been an overall reduction in VOCs at MW-2 (2020 = 928.7 ug/L VS 2021 = 496.8ug/L). Nevertheless, the total detected VOCs at MW-2 and MW-3 are approximately 1.1 and 0.1 ppm, respectively.

5.1.3 Annual Inspection and Certification

Annual inspection and certification are required to verify, certify, and attest that the institutional controls (ICs) and/or engineering controls (ECs) employed at the Site:

- Are in place and effective;
- Are performing as designed;
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Access is available to the Site to evaluate continued operation and maintenance of such controls.

The site inspection was completed on April 21, 2022, for the current reporting period. The property is being used in accordance with the commercial or industrial uses. No observable indication of intrusive activities was noted during the Site inspection. No observable use of groundwater was noted during the reporting period. No erosion of the cover system was noted during the site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. A photolog of the most recent Site inspection is included in Appendix B.

5.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved-SMP for the Site. The EWP provides guidelines for the management of soil and fill material during any future intrusive actives.

No intrusive activities requiring management of on-Site soil or fill material; or the placement of backfill materials occurred during the monitoring period.

5.3 Engineering and Institutional Control Requirements and Compliance

As detailed in the Environmental Easements, several IC/ECs need to be maintained as a requirmement of the BCAs for the Site.

5.3.1 Institutional Controls

- Groundwater-Use Restriction – the use of groundwater for potable and non-potable purposes is prohibited without water quality treatment as determined by the NYSDOH or County DOH;
- Land-Use Restriction: The controlled property may be used for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws; and
- Implementation of the SMP. Requires compliance with the Department- approved Site Management Plan

5.3.2 Engineering Controls

- All engineering controls must be operated, maintained, and inspected as specified in the SMP;
- Dual-Phase Extraction – Based on the remaining VOC impacts in unsaturated and shallow saturated soil, an in-situ dual-phase soil vapor and groundwater extraction system was selected as an engineering control to treat the remaining impacts. DPE is an in-situ remediation technology that uses a blower to remove both contaminated groundwater and hydrocarbon vapor (i.e., soil gas) from the subsurface. The DPE system is evaluated based on mass removal trends, groundwater depression, groundwater quality improvements, and soil sampling (prior to discontinuation). DPE System has been operated and maintained in compliance with the SMP; and
- Cover System – Exposure to remaining soil contamination at the Site is mitigated by a cover system placed over the Site. This cover system is comprised of a minimum of 12 inches of DER-10 compliant soil material over demarcation layer, and hardscape elements of the redevelopment, including asphalt, concrete-covered

sidewalks, and concrete building slabs. The cover system is evaluated by observing that the cover is intact without signs of excavation or erosion. The cover system, including buildings, concrete sidewalks, asphalt, and landscaped vegetated soil are being maintained in compliance with the SMP.

At the time of the site inspection, the Site was compliant with the engineering and institutional control requirements.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is in compliance with the SMP, engineering, and institutional control requirements. Land use and groundwater use restrictions have been adhered to during this monitoring period. The DPE system has been effective at lower the groundwater table, treating impacted groundwater, and removing VOCs from the soil, evident from the mass removal trends on Table 3. The groundwater concentrations at MW-2 are greater than pre-remediation concentrations, but we believe that this was caused by the DPE system pulling contamination past MW-2. We expect to see concentrations continue to decrease over time. The cover system has prevented contact to remaining contamination by providing a barrier that has not been breached during this monitoring period.

The SMP, engineering, and institutional controls have been effective. We plan on making adjustments to the DPE system to reduce the off-site influence along Route 5 that may be influencing the groundwater concentrations at MW-2. Specifically, we plan to reduce the vacuum at DPE-1 and DPE-10 to lessen the radius of influence to see if the total VOC concentration at MW-2 drops. After the adjustments have been made, we will wait a month or two for the groundwater to reach equilibrium before collecting groundwater sample from MW-2 and MW-3 for VOCs. Based on the groundwater analytical results further adjustments and sampling may be required. We plan on completing the next annual groundwater monitoring in the Fall of 2022 and a site inspection in the Spring of 2023. The next PRR report will be submitted in May 2023.

7.0 DECLARATION/LIMITATION

A Benchmark principal engineer, licensed in New York and with direct supervisory responsibility conducted the annual site inspections for the 2424 Hamburg Turnpike Site BCP Site No. C915296, located in Lackawanna, New York, according to generally accepted practices.

This report complied with the scope of work provided to 2424 Hamburg Turnpike, LLC by Benchmark-TurnKey.

This report has been prepared for the exclusive use of 2424 Hamburg Turnpike, LLC and MLG Contracting Inc. The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of 2424 Hamburg Turnpike, LLC and MLG Contracting Inc. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark-TurnKey.

TABLES

Table 1 - Summary of DPE System Analytical for Mass Removal Calculations

2424 Hamburg Turnpike
2424 Hamburg Turnpike LLC

Parameters [1]	DPE Influent Vapor Sample 11-15-19		DPE Influent Vapor Sample 11-18-21	
	TO-15 VOCs (ug/m^3)	APH (ug/m^3)	TO-15 VOCs (ug/m^3)	APH (ug/m^3)
Dichlorodifluoromethane	ND	NA	1.62	NA
Carbon disulfide	ND	NA	1.49	NA
n-Hexane	166,000	NA	38.8	NA
Benzene	1,550	1,900	34.5	35
Cyclohexane	36,500	NA	39.2	NA
Xylene (total)	119,000	117,000	168.7	165
2,2,4-Trimethylpentane	258,000	NA	113	NA
Heptane	132,000	NA	8.4	NA
Toluene	18,900	19,000	31.3	35
Ethylbenzene	26,900	27,000	71.7	74
4-Ethyltoluene	13,200	NA	33.4	NA
1,3,5-Trimethylbenzene	17,400	NA	32.4	NA
1,2,4-Trimethylbenzene	40,200	NA	147	NA
Naphthalene	NA	ND	NA	24
Tentatively Identified Compounds (TICs) (ppbV)	317,000	NA	250.8	NA
C5-C8 Aliphatics	NA	5,200,000	NA	1,600
C9-C12 Aliphatics	NA	330,000	NA	160
C9-C10 Aromatics	NA	160,000	NA	700
Sum of APH (ug/m^3)	NA	5,854,900	NA	2,793
Correlation Between APH Results and PID Readings				
PID Reading at Time of Sample	1260 ppm		0.2 ppm	
Sum of APH (ug/m^3)	5,854,900		2,793	
Sum of APH (mg/m^3)	5,855		2.79	
(APH/PID) 1 ppm on PID =	4.65 mg/m^3		13.97 mg/m^3	

Notes:

1) Only parameters detected in at least one sample are presented in this table.

APH = Air-phase Petroleum Hydrocarbons

NA = Not Analyzed

Parameters [1]	DPE Influent GW Sample 11-12-19
CP-51 List VOCs (ug/L)	
Benzene	21
Toluene	230
Ethylbenzene	300
p/m-Xylene	1200
o-Xylene	420
n-Butylbenzene	20 J
sec-Butylbenzene	12 J
Isopropylbenzene	39
p-Isopropylbenzene	7.8 J
n-Isopropylbenzene	100
1,3,5-Trimethylbenzene	320
1,2,4-Trimethylbenzene	1100
Subtotal	3770
VOC Mass Removal from Groundwater (GW) Treatment Since 11/08/19	
Sum of VOCs (ug/L)	3770
Sum of VOCs (mg/L)	3.77
Water Treated by the DPE System (gallons)	1,247,150
Water Treated by the DPE System (liters)	4,720,962
GW VOCs Treated by the DPE System (mg)	17,797,081
GW VOCs Treated by the DPE System (lbs)	39.24

Notes:

1) Only parameters detected in at least one sample are presented in this table.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

GW VOCs treated by DPE system (mg) = sum of VOCs (mg/L) * water treated (liters)

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TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PERIODIC REVIEW REPORT

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK

Parameter [1]	NYSDEC Class GA GWQS[2]	MW-1 11/16/21	MW-2 7/27/16	MW-2 10/15/20	MW-2 11/16/21	MW-3 7/27/16	MW-3 10/15/20	MW-3 11/16/21	MW-4 11/16/21	MW-5 11/16/21
Field Measurements										
Dissolved Oxygen (mg/L)	--	1.84	0.91	NA	2.24	0.73	NA	0.75	1.32	NA
Field pH (S.U.)	**12.5**	7.21	6.79	6.88	7.1	6.57	6.86	7.62	6.57	6.44
Redox Potential (mV)	--	-141	-109	-91	-86	-86	-88	-140	33	-46
Specific Conductance (umhos/cm)	--	1150	1253	1100	1509	1059	897.5	510.8	567.5	1138
Temperature (deg C)	--	12.7	21.4	18.3	15.7	21.3	20.4	15.4	15.8	13.0
Turbidity (NTU)	--	>1000	672	12.10	>1000	114	15.3	29.80	55.4	35.6
TCL Volatile Organic Compounds (VOCs) - ug/L										
1,2,4-Trimethylbenzene	**5**	NA	NA	NA	**530 J D**	NA	NA	1.6 J	NA	NA
1,3,5-Trimethylbenzene	**5**	NA	NA	NA	**9.3 J D**	NA	NA	ND	NA	NA
Acetone	**50**	NA	12	ND	ND	4.4 J	ND	ND	NA	NA
Benzene	**1**	NA	**8.9**	**63 D**	**59 D**	**8.8**	**9.7**	**8.1**	NA	NA
Carbon disulfide	**60**	NA	0.4	ND	ND	ND	ND	ND	NA	NA
Cyclohexane	--	NA	ND	83 D	66 D	ND	3.6 J	7.9 J	NA	NA
Ethylbenzene	**5**	NA	**6.3**	**270 D**	**200 D**	3.5	5	**14**	NA	NA
Isopropylbenzene (Cumene)	**5**	NA	ND	**23 D**	**20 D**	ND	3.2	**5.4**	NA	NA
m,p-Xylenes	**5**	NA	NA	**480 D**	**130 D**	NA	**5.6**	3.4	NA	NA
Methyl tert-butyl ether	**10**	NA	5.1	2.7 J D	2.8 J D	0.5 J	ND	ND	NA	NA
Methylcyclohexane	-	NA	ND	30 D	25 J D	0.97 J	ND	16	NA	NA
n-Butylbenzene	**5**	NA	NA	NA	2.8 J D	NA	NA	**9.40**	NA	NA
n-Propylbenzene	**5**	NA	NA	NA	**51**	NA	NA	**24.00**	NA	NA
O-Xylene	**5**	NA	NA	**17 D**	**22 D**	NA	2.1 J	4.5	NA	NA
Sec-Butylbenzene	**5**	NA	NA	NA	**5.6 J D**	NA	NA	4.60	NA	NA
Toluene	**5**	NA	**8.6**	**14 D**	**16 D**	5	2.2 J	0.83 J	NA	NA
Xylenes, Total	**5**	NA	**40**	**497 D**	**152 D**	**9.5**	**7.7 J**	**7.9**	NA	NA
TOTAL VOCs	--	NA	81.30	982.7 D	1139.5 D	32.67	31.4	99.73	NA	NA

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards (GWQS).

Definitions:
D = Concentration of analyte was quantified from diluted analysis.
ND = Parameter not detected above laboratory detection limit.
NA = Not Analyzed
"--" = No GWQS available.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
ug/L = micrograms per liter

Exceeds NYSDEC Class GA GWQS

Table 3 - Summary of DPE System VOC Mass Removal

2424 Hamburg Turnpike
2424 Hamburg Turnpike LLC

Date	Influent (Untreated) PID Reading[4] (ppm)	Corrected Influent Concentration[1,2] (mg/m3)	Corrected Influent Concentration[1,2] (lb/CF)	Vacuum at Blower (in Hg)	Air Flow Rate (CFM)	Volume of Air Processed Since Last Monitoring Period (CF)	VOCs Removed Since Last Monitoring Period (lb)	Rate of VOC Removal (lb/day)	Total VOCs Removal to Date[5] (lb)	Notes
11/08/19	808	3757	2.346E-04	14.0	194	0	0	0.0	0	
11/11/19	1,146	5329	3.327E-04	12.0	195	771572	218.8	79.6	218.83	
11/11/19	1,240	5766	3.600E-04	12.0	195	11714	4.1	97.4	222.89	
11/12/19	1,270	5906	3.687E-04	12.0	195	304568	111.0	102.4	333.84	
11/12/19	770	3581	2.235E-04	7.0	197	11773	3.5	83.7	337.33	
11/13/19	610	2837	1.771E-04	8.0	197	260055	52.1	56.8	389.42	
11/13/19	900	4185	2.613E-04	9.0	196	47188	10.3	62.1	399.76	
11/14/19	730	3395	2.119E-04	8.5	197	200448	47.4	67.0	447.18	
11/14/19	960	4464	2.787E-04	10.3	196	11776	2.9	69.3	450.07	
11/15/19	1,550	7208	4.499E-04	10.5	196	282049	102.8	102.8	552.83	
11/18/19	920	4278	2.671E-04	10.0	196	858158	307.7	101.1	860.48	
11/20/19	400	1860	1.161E-04	9.5	196	553069	106.0	54.1	966.45	
11/21/19	570	2651	1.655E-04	9.5	196	306107	43.1	39.8	1009.54	
11/21/19	200	930	5.806E-05	6.2	198	23625	2.6	31.7	1012.18	
11/22/19	79	367	2.293E-05	6.5	197	284349	11.5	11.5	1023.70	
11/22/19	370	1721	1.074E-04	10.5	196	23594	1.5	18.5	1025.24	
11/25/19	580	2697	1.684E-04	9.0	196	811952	112.0	38.9	1137.20	
11/26/19	370	1721	1.074E-04	9.0	196	271059	37.4	39.0	1174.57	
11/26/19	750	3488	2.177E-04	12.8	195	23480	3.8	45.8	1178.39	
11/27/19	810	3767	2.351E-04	11.0	196	-175748	-39.8	63.7	1138.59	
12/02/19	380	1767	1.103E-04	14.0	194	1848967	319.4	48.5	1457.95	
12/02/19	1,080	5022	3.135E-04	17.0	193	11631	2.5	59.2	1460.42	
12/04/19	1,000	4650	2.903E-04	18.0	193	602367	181.9	83.9	1642.27	
12/09/19	860	3999	2.496E-04	17.7	193	1354356	365.6	75.0	2007.91	
12/09/19	450	2093	1.306E-04	15.0	194	11611	2.2	53.0	2010.12	
12/11/19	420	1953	1.219E-04	15.0	194	570514	72.0	35.3	2082.16	
12/18/19	240	1116	6.967E-05	17.5	193	1962692	188.0	26.7	2270.18	
12/18/19	218	1014	6.328E-05	15.0	194	11614	0.8	18.5	2270.95	
12/20/19	206	958	5.980E-05	13.0	195	513340	31.6	17.2	2302.54	
01/02/20	150	698	4.354E-05	14.0	194	2709448	140.0	14.5	2442.54	Restart system
01/02/20	40	186	1.161E-05	15.6	194	11648	0.3	7.7	2442.86	
01/02/20	20	93	5.806E-06	16.5	193	23237	0.2	2.4	2443.07	
01/03/20	11	51	3.193E-06	14.8	194	244183	1.1	1.3	2444.16	
01/03/20	73	339	2.119E-05	12.0	195	11681	0.1	3.4	2444.31	
01/06/20	120	558	3.483E-05	14.0	194	830025	23.3	7.9	2467.56	
01/06/20	132	614	3.832E-05	15.0	194	11655	0.4	10.2	2467.98	
01/08/20	168	781	4.877E-05	13.5	195	559723	24.4	12.2	2492.36	
01/14/20	125	581	3.629E-05	13.0	195	1647525	70.1	11.9	2562.42	
01/21/20	122	567	3.542E-05	12.0	195	1989395	71.3	10.1	2633.74	
01/27/20	90	419	2.613E-05	13.0	195	1650028	50.8	8.6	2684.52	
02/05/20	68	316	1.974E-05	14.0	194	2534268	58.1	6.4	2742.63	
02/13/20	10	45	2.787E-06	11.3	196	1474046	16.6	3.2	2759.24	Restart System
02/25/20	25	115	7.170E-06	12.6	195	70292	0.3	1.4	2759.59	Restart System
02/28/20	11	53	3.280E-06	13.0	195	397638	2.1	1.5	2761.66	Restart System
03/04/20	13	60	3.774E-06	13.7	195	1191585	4.2	1.0	2765.87	Restart System
03/11/20	9	42	2.613E-06	12.5	195	1940228	6.2	0.9	2772.06	
03/17/20	62	287	1.791E-05	12.3	195	1673771	17.2	2.9	2789.24	
03/20/20	30	140	8.767E-06	12.1	195	737694	9.8	3.7	2799.08	Restart System
04/14/20	13	58	3.629E-06	10.0	196	46947	0.3	1.7	2799.37	Restart System
04/15/20	20	92	5.748E-06	12.5	195	363689	1.7	1.3	2801.07	
04/24/20	20	92	5.748E-06	12.0	195	23416	0.1	1.6	2801.21	Restart System
04/27/20	70	324	2.023E-05	11.5	195	949326	12.3	3.7	2813.54	
05/01/20	20	94	5.864E-06	13.7	195	772197	10.1	3.7	2823.62	Restart System
05/01/20	6	27	1.713E-06	10.0	196	35153	0.1	1.1	2823.75	
05/04/20	43	202	1.260E-05	12.0	195	868599	6.2	2.0	2829.97	
05/06/20	64	299	1.869E-05	11.5	195	609444	9.5	4.4	2839.50	
05/06/20	72	334	2.087E-05	11.6	195	11725	0.2	5.6	2839.73	
05/12/20	78	361	2.253E-05	11.0	196	1630571	35.4	6.1	2875.12	
05/19/20	25	114	7.112E-06	10.5	196	1949462	28.9	4.2	2904.00	
05/19/20	38	178	1.109E-05	11.0	196	35231	0.3	2.6	2904.33	
06/03/20	4	20	1.248E-06	8.0	197	894773	5.5	1.7	2909.85	Restart System
06/03/20	4	20	1.248E-06	8.0	197	70853	0.1	0.4	2909.93	Turn System off too much water
06/04/20	4	16	1.016E-06	12.5	195	35267	0.0	0.3	2909.97	Restart system. Turn System off too much water
06/12/20	8	37	2.293E-06	13.2	195	46776	0.1	0.5	2910.05	Restart system
06/15/20	17	80	5.022E-06	11.3	196	854702	3.1	1.0	2913.18	
06/15/20	28	131	8.157E-06	12.0	195	11722	0.1	1.9	2913.25	
06/17/20	80	372	2.322E-05	10.0	196	551678	8.7	4.4	2921.91	
06/17/20	130	606	3.785E-05	13.0	195	11726	0.4	8.6	2922.27	
06/23/20	130	606	3.782E-05	11.0	196	1675125	63.4	10.6	2985.65	
06/24/20	84	388	2.424E-05	12.0	195	257972	8.0	8.7	2993.66	Turned system off for carbon change out
06/25/20	84	390	2.433E-05	13.8	195	35079	0.9	6.8	2994.51	Restart system
06/30/20	1,500	6975	4.354E-04	12.3	195	1449474	333.2	64.5	3327.72	
07/02/20	1,500	6975	4.354E-04	12.0	195	491846	214.2	122.4	3541.88	
07/02/20	1,500	6975	4.354E-04	12.0	195	81999	35.7	122.4	3577.59	
07/08/20	1,240	5766	3.600E-04	11.5	195	1640811	652.5	111.9	4230.14	
07/14/20	362	1683	1.051E-04	12.0	195	1664251	387.0	65.4	4617.11	
07/14/20	393	1827	1.141E-04	12.0	195	11714	1.3	30.8	4618.40	
08/09/20	100	465	2.906E-05	16.0	194	6020079	430.9	20.0	5049.26	Restart system
08/09/20	76	355	2.215E-05	13.0	195	11655	0.3	7.2	5049.56	
08/16/20	87	403	2.514E-05	12.0	195	1965991	46.5	6.6	5096.04	
08/22/20	87	403	2.514E-05	11.0	196	1711995	43.0	7.1	5139.08	
08/22/20	112	522	3.260E-05	12.8	195	11717	0.3	8.1	5139.42	
08/29/20	186	864	5.391E-05	12.7	195	1918211	83.0	12.1	5222.39	
09/05/20	205	953	5.948E-05	12.0	195	1966587	111.5	15.9	5333.88	
09/12/20	139	644	4.021E-05	12.0	195	1944551	96.9	14.0	5430.80	
09/20/20	161	748	4.671E-05	11.5	195	2226815	96.8	12.2	5527.57	
09/27/20	188	876	5.466E-05	11.3	196	1993822	101.1	14.3	5628.63	
09/27/20	309	1435	8.955E-05	8.5	197	35292	2.5	20.4	5631.17	
10/01/20	4	17	1.045E-06	13.0	195	763344	34.6	12.8	5665.75	
10/03/20	22	104	6.503E-06	11.3	196	538688	2.0	1.1	5667.78	
10/10/20	24	113	7.025E-06	10.3	196	1972751	13.3	1.9	5681.13	
10/18/20	26	121	7.577E-06	10.5	196	2256390	16.5	2.1	5697.60	
10/18/20	20	94	5.893E-06	11.7	195	23471	0.2	1.9	5697.76	
10/25/20	14	66	4.151E-06	16.0	194	1668863	8.4	1.4	5706.14	
10/25/20	6.8	32	1.974E-06	12.6	195	11660	0.0	0.9	5706.18	
10/31/20	6.2	29	1.800E-06	10.6	196	1617861	3.1	0.5	5709.23	
11/07/20	3.7	17	1.074E-06	10.0	196	2080529	3.0	0.4	5712.22	

Table 3 - Summary of DPE System VOC Mass Removal

2424 Hamburg Turnpike
2424 Hamburg Turnpike LLC

Date	Influent (Untreated) PID Reading[4] (ppm)	Corrected Influent Concentration[1,2] (mg/m3)	Corrected Influent Concentration[1,2] (lb/CF)	Vacuum at Blower (in Hg)	Air Flow Rate (CFM)	Volume of Air Processed Since Last Monitoring Period (CF)	VOCs Removed Since Last Monitoring Period (lb)	Rate of VOC Removal (lb/day)	Total VOCs Removal to Date[5] (lb)	Notes
11/19/20	9.4	44	2.729E-06	9.9	196	3352365	6.4	0.5	5718.59	
12/03/20	4.0	19	1.161E-06	11.6	195	1550175	3.0	0.5	5721.61	
12/11/20	2.6	12	7.548E-07	10.5	196	4553819	4.4	0.3	5725.97	
12/17/20	2.3	11	6.677E-07	9.5	196	1681895	1.2	0.2	5727.17	
12/22/20	2.6	12	7.548E-07	11.5	195	1433459	1.0	0.2	5728.19	System shut down for winter
04/19/21	19.6	91	5.690E-06	14.0	194	35089	0.1	0.9	5728.30	System Startup
04/30/21	21.3	99	6.183E-06	14.0	194	3033373	18.0	1.7	5746.31	
04/30/21	16.4	76	4.761E-06	12.5	195	35054	0.2	1.5	5746.50	
05/08/21	1.5	7	4.354E-07	12.0	195	2283107	5.9	0.7	5752.43	
05/12/21	1.3	6	3.774E-07	12.3	195	1053955	0.4	0.1	5752.86	
05/21/21	2.6	12	7.548E-07	11.3	196	2507843	1.4	0.2	5754.28	
05/27/21	2.1	10	6.096E-07	11.0	196	1666268	1.1	0.2	5755.41	
06/02/21	1.1	5	3.193E-07	11.5	195	1736323	0.8	0.1	5756.22	
06/10/21	2.5	12	7.257E-07	12.0	195	23440	0.0	0.1	5756.23	Restart system after tank high alarm
06/15/21	1.5	7	4.354E-07	11.0	196	1336763	0.8	0.2	5757.01	Turned system off to drain carbon turned on 6-16
06/24/21	1.4	7	4.064E-07	10.5	196	2337006	1.0	0.1	5757.99	
07/02/21	16.7	78	4.848E-06	14.5	194	2223442	5.8	0.7	5763.83	
07/08/21	1.7	8	4.935E-07	10.5	196	1661730	4.4	0.8	5768.27	
07/15/21	0.6	3	1.742E-07	12.3	195	1958636	0.7	0.1	5768.93	
07/23/21	1.0	5	2.903E-07	14.0	194	876520	0.2	0.1	5769.13	Restart system on 7-22-22 after tank high alarm
07/29/21	1.3	6	3.774E-07	13.8	195	1622017	0.5	0.1	5769.67	
08/06/21	1.3	6	3.774E-07	12.8	195	2243211	0.8	0.1	5770.52	
08/06/21	3.6	17	1.045E-06	12.2	195	11702	0.0	0.2	5770.53	
08/12/21	2.0	9	5.806E-07	11.6	195	1722329	1.4	0.2	5771.93	
08/20/21	1.3	6	3.774E-07	13.2	195	2270710	1.1	0.1	5773.01	
08/27/21	5.0	23	1.451E-06	11.6	195	1966388	1.8	0.3	5774.81	
09/03/21	6.4	30	1.858E-06	11.2	196	1970365	3.3	0.5	5778.07	
09/08/21	26.3	122	7.635E-06	12.8	195	1405699	6.7	1.3	5784.74	
09/16/21	0.9	4	2.613E-07	14.0	194	2172670	8.6	1.1	5793.32	
09/24/21	1.0	5	2.903E-07	13.4	195	2323110	0.6	0.1	5793.96	
09/30/21	1.4	7	4.064E-07	11.9	195	1637828	0.6	0.1	5794.53	
10/07/21	3.0	14	8.709E-07	15.6	194	1330692	0.8	0.2	5795.38	
10/14/21	0.9	4	2.613E-07	12.3	195	1925221	1.1	0.2	5796.47	
10/29/21	1.1	5	3.193E-07	15.3	194	2766158	0.8	0.1	5797.27	Restart system after power failure
11/05/21	1.1	5	3.193E-07	16.0	194	1976720	0.6	0.1	5797.91	
11/12/21	2.4	11	6.967E-07	16.0	194	1638347	0.8	0.1	5798.74	Restart system 11/10/21 from local power failure
11/18/21	0.2	3	1.744E-07	18.4	193	1031606	0.4	0.1	5799.19	Restart system 11/15 and 11/16 from power failure
11/18/21	1.7	24	1.482E-06	18.2	193	23130	0.0	0.2	5799.21	Turn DPE-11 and 12 on
11/24/21	1.4	20	1.221E-06	16.9	193	567557	0.8	0.4	5799.97	
12/02/21	0.4	6	3.487E-07	16.1	194	2251883	1.8	0.2	5801.74	
12/08/21	0.5	7	4.359E-07	16.5	193	1683795	0.7	0.1	5802.40	
12/16/21	0.5	7	4.359E-07	16.4	194	2205677	1.0	0.1	5803.36	
12/22/21	0.0	0	0.000E+00	16.5	193	1671671	0.4	0.1	5803.73	
01/05/22	0.0	0	0.000E+00	16.8	193	3887372	0.0	0.0	5803.73	
01/13/22	0.1	1	8.718E-08	15.3	194	2195858	0.1	0.0	5803.82	
01/18/22	0.9	13	7.846E-07	15.1	194	826328	0.4	0.1	5804.18	Restart system after tank high alarm
01/28/22	6.8	95	5.928E-06	16.0	194	2802862	9.4	0.9	5813.59	
02/11/22	10.4	145	9.067E-06	16.7	193	1521067	11.4	2.1	5824.99	Restart system after tank high alarm
02/18/22	4.7	66	4.097E-06	21.3	192	1120202	7.4	1.8	5832.37	2-14-22 Clean EQ tank floats and restart system
02/18/22	5.9	82	5.144E-06	19.6	192	11514	0.1	1.3	5832.42	Increased flow at DPE-4, 13, and 14.
03/09/22	0.2	3	1.744E-07	16.4	194	5195891	13.8	0.7	5846.24	
03/15/22	0.1	1	8.718E-08	15.9	194	1544919	0.2	0.0	5846.44	
03/25/22	0.3	4	2.615E-07	17.6	193	2854025	0.5	0.0	5846.94	
04/01/22	0.1	1	8.718E-08	17.4	193	1934524	0.3	0.0	5847.27	
04/06/22	0.3	4	2.615E-07	17.2	193	1390645	0.2	0.0	5847.52	
04/15/22	0.1	1	8.718E-08	17.8	193	2502139	0.4	0.0	5847.95	
04/21/22	0.2	3	1.744E-07	17.5	193	1679162	0.2	0.0	5848.17	

Notes:

1. The estimated mass of contamination recovered is based on ratio of the sum of the volatile organic carbons (VOCs) as measured by a vapor sample collected on November 15, 2019 with a summa canister compared to a contemporaneous PID reading. The average concentration of VOCs was 4.65 mg/m3 per 1 ppm PID reading.

2. The estimated mass of contamination recovered is based on ratio of the sum of the volatile organic carbons (VOCs) as measured by a vapor sample collected on November 18, 2021 with a summa canister compared to a contemporaneous PID reading. The average concentration of VOCs was 13.97 mg/m3 per 1 ppm PID reading.

3. VOCs = volatile organic compounds; ppm= parts per million; mg/m3 = milligrams per cubic meter; lb/cf = pounds of VOCs per cubic foot; in Hg = inches of mercury; CFM = cubic feet per minute; CF = cubic feet; lb = pounds

4. Please note the "influent" PID reading refers to untreated incoming vapor. The samples and PID readings are collected from the discharge side of the blower where positive pressure facilitates sample collection. There is no vapor phase treatment; and as such no difference between incoming or exiting concentrations across the DPE system.

5. The mass of VOCs removed is calculated by using the APH/PID (mg/m^3) located on Table 1 * Influent PID reading (ppm) = Corrected influent (mg/m3), convert this to lb/cf. Take the vacuum reading (in Hg) and covert to CFM using the blower curve formula specific to the blower used. Take the CFM * elapsed time (minutes) = volume of air processed (CF) * the corrected influent concentration (lb/CF) = VOC's removed (lb)

Table 4 - Summary of DPE Well PID Readings

2424 Hamburg Turnpike
2424 Hamburg Turnpike LLC

Date:	11/26/2019		7/2/2020		9/27/2020		10/3/2020		4/30/2021		8/6/2021		11/18/2021	
Well ID	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)	PID (ppm)	Vac. (inch Hg)
DPE-1	365.0	16.0	42.3	17.5	720.0	10.5	24.2	14.5	14.1	18.5	5.0	20.0	1.6	21.5
DPE-2	65.0	17.5	855.0	22.0	136.4	20.5	61.0	22.5	22.7	24.5	21.0	24.0	5.6	24.5
DPE-3	970.0	20.0	314.0	20.5	202.0	15.3	15.5	19.0	19.6	23.0	26.0	22.0	1.5	24.5
DPE-4	60.0	5.0	710.0	19.0	144.3	19.5	31.6	22.0	12.3	13.5	5.0	16.5	3.7	17.3
DPE-5	15.0	21.0	600.0	22.5	101.5	22.0	5.2	24.5	NC	NC	4.5	24.0	0.8	24.5
DPE-6	30.0	24.0	110.0	20.0	NC	NC	6.9	22.0	11.3	24.5	1.3	23.0	0.7	24.5
DPE-7	8.9	6.5	7.1	10.5	NC	NC	NC	NC	NC	NC	0.0	11.0	0.0	12.0
DPE-8	4.9	19.5	0.1	23.5	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
DPE-9	1990.0	22.5	488.0	22.5	202.0	15.3	15.5	19.0	37.2	24.0	16.0	24.0	0.8	24.5
DPE-10	300.0	24.0	39.3	19.8	720.0	10.5	24.2	14.5	27.5	21.5	40.0	19.0	21.5	20.3
DPE-11	8.3	20.0	19.4	25.0	NC	NC	NC	NC	NC	NC	1.2	24.0	1.3	24.5
DPE-12	8.3	20.0	12.3	24.5	NC	NC	NC	NC	NC	NC	3.0	23.0	1.5	24.0
DPE-13	8.3	20.0	11.8	20.7	NC	NC	NC	NC	NC	NC	0.8	22.0	0.2	22.0
DPE-14	8.3	20.0	NC	NC	NC	NC	NC	NC	NC	NC	2.0	24.0	0.5	23.5

Notes:

= Highlighted cells reading was taken with DPE-11, DPE-12, DPE-13, and DPE-14 open.

= Highlighted cells reading was taken with DPE-1 and DPE-10 open.

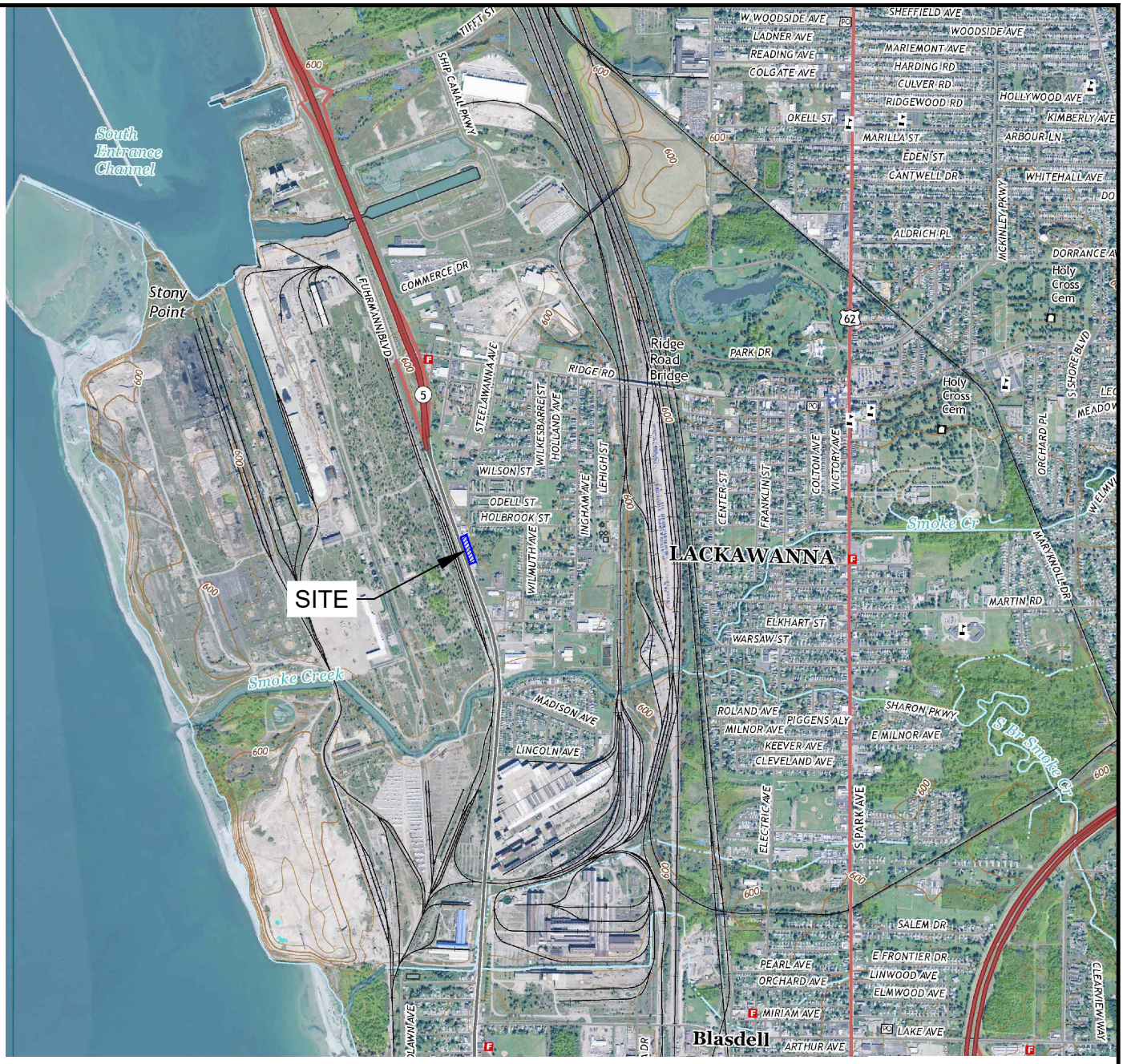
= Highlighted cells reading was taken with DPE-3 and DPE-9 open.

NC = Not Collected

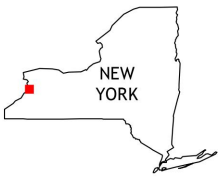
FIGURES

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\0-PRR\Figure 1; Site Location and Vicinity Map.dwg, 4/26/2022 1:48:54 PM

FIGURE 1



APPROXIMATE SCALE 1" = 2,500'
BASE MAP IS USGS 2016 BUFFALO SE QUADRANGLE.



BENCHMARK
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0345-021-001

DATE:

DRAFTED BY: RFL/CCB

SITE LOCATION & VICINITY MAP

PERIODIC REVIEW REPORT

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK

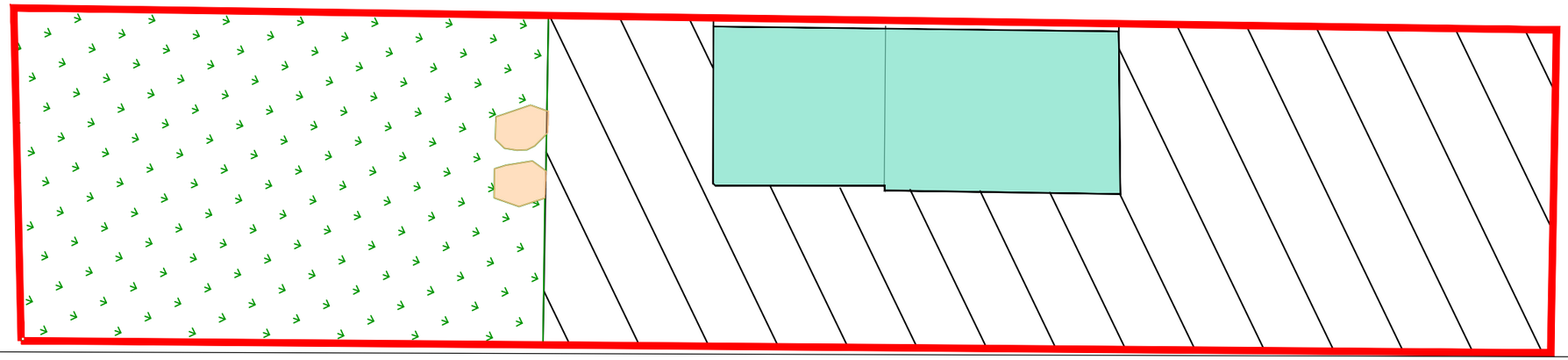
PREPARED FOR

2424 HAMBURG TURNPIKE, LLC

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\0-PRR\Figure 2, Site Plan.dwg, 5/1/2022 4:08:32 PM

LEGEND:

- BCP AND PROPERTY BOUNDARY
- STRUCTURE / BUILDING WITH CONCRETE FLOOR
- ASPHALT COVER
- POURED CONCRETE
- SOIL COVER



N

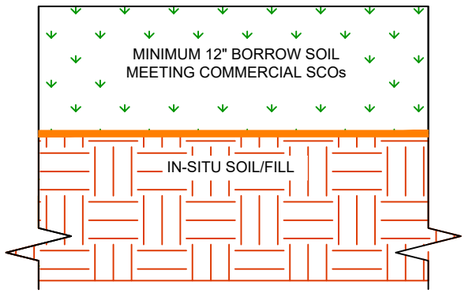
40' 0' 40' 80'

SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)

HAMBURG TURNPIKE

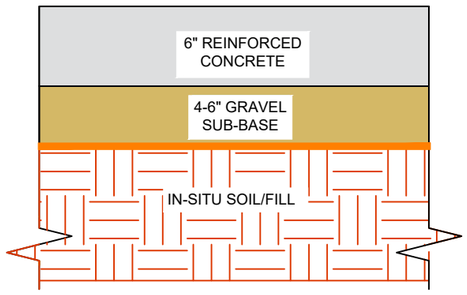
VEGETATIVE COVER SYSTEM DETAIL

NTS



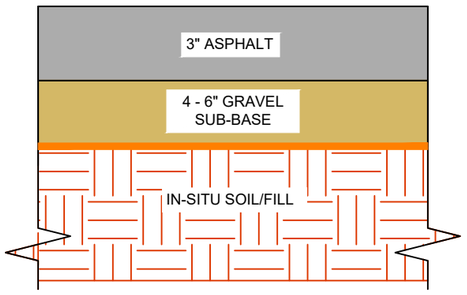
CONCRETE COVER SYSTEM DETAIL

NTS



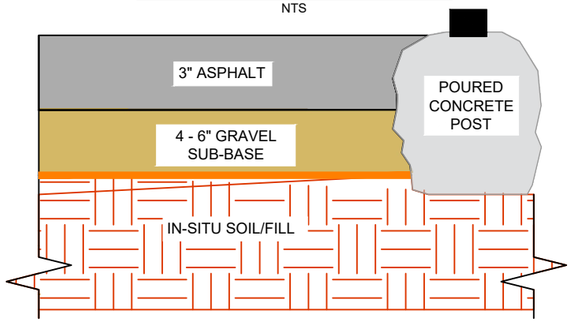
PAVEMENT COVER SYSTEM DETAIL

NTS



PAVEMENT / BILLBOARD POST TIE-IN COVER SYSTEM DETAIL

NTS



DEMARCATION LAYER

DATE: OCTOBER 2019
DRAFTED BY: CMC/CCB

BENCHMARK

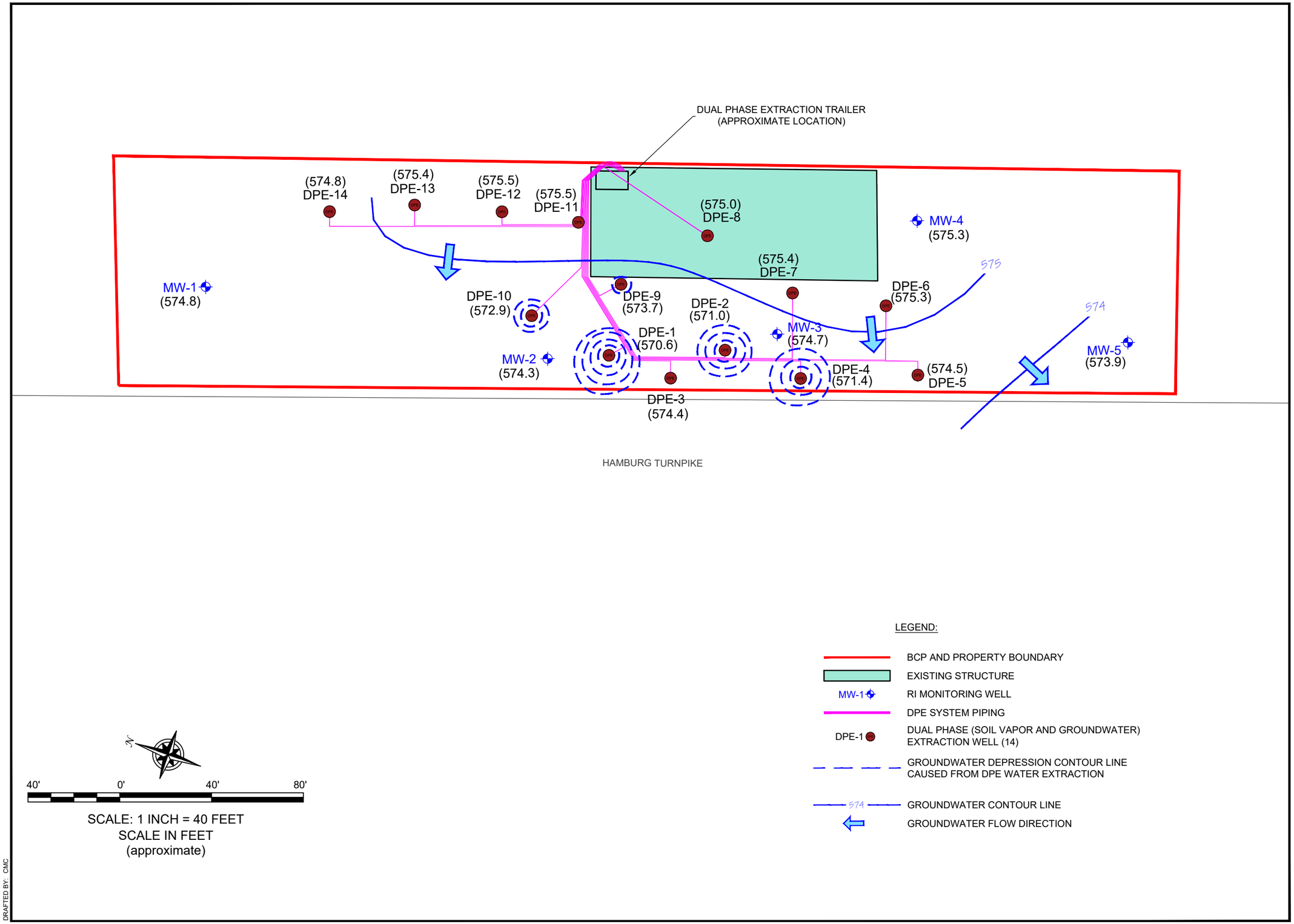
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: 0345-021-001

SITE PLAN

PERIODIC REVIEW REPORT
2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK
PREPARED FOR
2424 HAMBURG TURNPIKE, LLC

FIGURE 2



F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\0-PRR\2021-2022\Figure 3; Groundwater Isopotential Map.dwg, 5/2/2022 9:52:55 AM

DATE: APRIL 2021
DRAFTED BY: CMC

BENCHMARK

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: 0345-021-001

GROUNDWATER ISOPOTENTIAL MAP
NOVEMBER 16, 2021

PERIODIC REVIEW REPORT

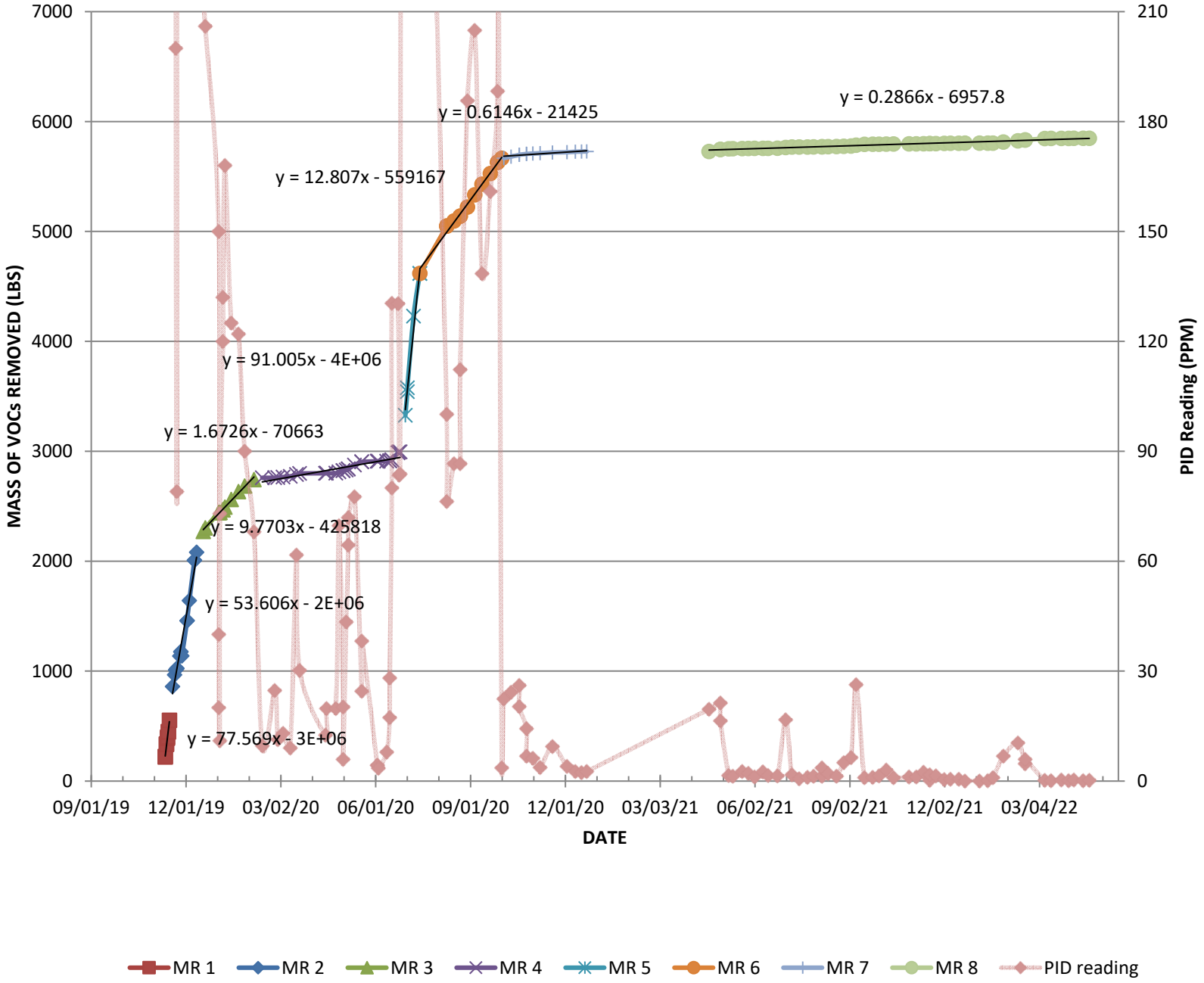
2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK

PREPARED FOR

2424 HAMBURG TURNPIKE, LLC

FIGURE 3

FIGURE 4
2424 Hamburg Turnpike
Estimated Mass Removal



APPENDIX A

NYSDEC CERTIFICATION AND NOTIFICATION FORMS

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C915296**

Site Name 2424 Hamburg Turnpike

Site Address: 2424 Hamburg Turnpike Zip Code: 14218
City/Town: Lackawanna
County: Erie
Site Acreage: 1.040

Reporting Period: April 24, 2021 to April 24, 2022

	YES	NO
1. Is the information above correct?	✓	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	✓	
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		✓
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	✓	
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		✓

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	✓	
7. Are all ICs in place and functioning as designed?	✓	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	✓

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	✓	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C915296 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
141.59-5-2	~~2424 Hamburg Turnpike, LLC~~ MLG Contracting Inc.	Ground Water Use Restriction Landuse Restriction Site Management Plan O&M Plan IC/EC Plan Monitoring Plan Building Use Restriction

Box 4

Description of Engineering Controls

Parcel	Engineering Control
141.59-5-2	Vapor Mitigation Air Sparging/Soil Vapor Extraction Cover System

Dual-phase extraction system and site cover

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
✓	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
✓	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915296

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Michael Giordano (print name) at 2205 Hopkins Rd Getzville NY 14068 (print business address)

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

4/27/22
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Thomas Forbes, PE at Benchmark Civil/Environmental Engineering & Geology, PLLC 2558 Hamburg Tpke Buffalo, NY 14218,

print name print business address

am certifying as a Professional Engineer for the Owner

(Owner or Remedial Party)

STATE OF NEW YORK
THOMAS H. FORBES
No. 70950-1
LICENSED PROFESSIONAL ENGINEER

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification (Required for PE)

5-23-22

Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership
Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

To be submitted at least 60 days prior to change of use to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation, 625 Broadway
Albany NY 12233-7020

I. Site Name: 2424 Hamburg Turnpike **DEC Site ID No.** C915296

II. Contact Information of Person Submitting Notification:

Name: Thomas H. Forbes, P.E.
Address1: 2558 Hamburg Turnpike, Suite 300
Address2: Buffalo, NY 14218
Phone: (716) 856-0599 E-mail: tforbes@bm-tk.com

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

- [x] Change in Ownership or Change in Remedial Party(ies)
- [x] Transfer of Certificate of Completion (CoC)
- [ ] Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): Mar 31, 2022

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.
2424 Hamburg Turnpike, LLC is planning to transfer ownership of the 2424 Hamburg Turnpike BCP Site No. C915296 to MLG Contracting Inc. This notice also requests transfer of the COC to MLG Contracting Inc.

If "Other," the description must explain and advise the Department how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

V. **Certification Statement:** Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: _____ Mar 8, 2022
(Signature) (Date)

Thomas H. Forbes, P.E.
(Print Name)

Address1: 2558 Hamburg Turnpike, Suite 300

Address2: Buffalo, NY 14218

Phone: (716) 856-0599 E-mail: tforbes@bm-tk.com

VI. **Contact Information for New Owner, Remedial Party, or CoC Holder:** If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☑ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: MLG Contracting Inc.

Address1: 2205 Hopkins Road

Address2: Getzville, NY 14068

Phone: (717) 863-1115 E-mail: mike.giordano@paintofwny.com

Certifying Party Name: 2424 Hamburg Turnpike, LLC

Address1: 2558 Hamburg Turnpike, Suite 300

Address2: Buffalo, NY 14218

Phone: (716) 856-0599 E-mail: tforbes@bm-tk.com

VII. Agreement to Notify DEC after Transfer: If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: _____ Mar 8, 2022
(Signature) (Date)

Thomas H. Forbes, P.E.
(Print Name)

Address1: 2558 Hamburg Turnpike, Suite 300

Address2: Buffalo, NY 14218

Phone: (716) 856-0599 E-mail: tforbes@bm-tk.com

APPENDIX B

SITE PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: 2424 Hamburg Turnpike Building (Looking SE)

Photo 2: Asphalt cover (Looking NE)

Photo 3: Vegetated soil cover (Looking N)

Photo 4: Vegetated soil cover (Looking SW)

SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

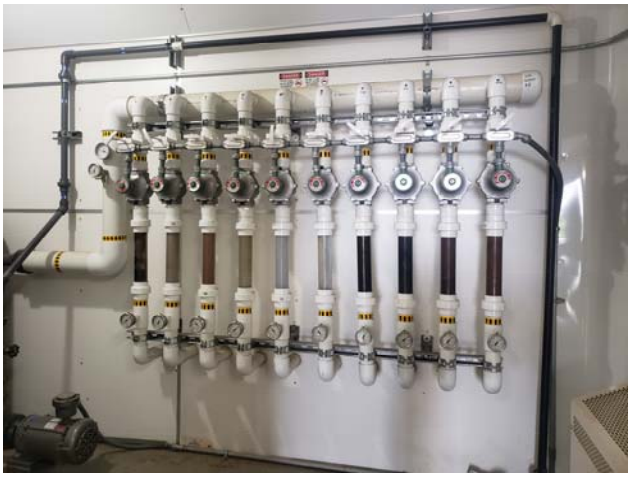


Photo 8:

Photo 5: South half of building with concrete floor (Looking NE)

Photo 6: North half of building with garage doors and concrete floor (Looking SW)

Photo 7: Dual phase extraction system manifold piping (Looking E)

Photo 8: Dual phase extraction system (Looking NE)

APPENDIX C

LABORATORY ANALYTICAL DATA REPORTS

ANALYTICAL REPORT

Lab Number:	L2163124
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	2424 HAMBURG TURNPIKE
Project Number:	B0345-021-001-1
Report Date:	12/01/21

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).

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

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163124
Report Date: 12/01/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2163124-01	MW-2	WATER	BUFFALO, NY	11/16/21 14:34	11/16/21
L2163124-02	MW-3	WATER	BUFFALO, NY	11/16/21 13:11	11/16/21

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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: Cristin Walker

Title: Technical Director/Representative Date: 12/01/21

ORGANICS

VOLATILES

Project Name: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

SAMPLE RESULTS

Lab ID: L2163124-01 D
Client ID: MW-2
Sample Location: BUFFALO, NY

Date Collected: 11/16/21 14:34
Date Received: 11/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/24/21 16:51
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	ND		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	59		ug/l	2.0	0.64	4
Toluene	16		ug/l	10	2.8	4
Ethylbenzene	200		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	ND		ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Trichloroethene	ND		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4

Project Name: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

SAMPLE RESULTS

Lab ID: L2163124-01 D
Client ID: MW-2
Sample Location: BUFFALO, NY

Date Collected: 11/16/21 14:34
Date Received: 11/16/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	2.8	J	ug/l	10	2.8	4
p/m-Xylene	130		ug/l	10	2.8	4
o-Xylene	22		ug/l	10	2.8	4
cis-1,2-Dichloroethene	ND		ug/l	10	2.8	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	ND		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
n-Butylbenzene	2.8	J	ug/l	10	2.8	4
sec-Butylbenzene	5.6	J	ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Isopropylbenzene	20		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
n-Propylbenzene	51		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	9.3	J	ug/l	10	2.8	4
1,2,4-Trimethylbenzene	530		ug/l	10	2.8	4
Methyl Acetate	ND		ug/l	8.0	0.94	4
Cyclohexane	66		ug/l	40	1.1	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
Methyl cyclohexane	25	J	ug/l	40	1.6	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	99		70-130

Project Name: 2424 HAMBURG TURNPIKE
Lab Number: L2163124
Project Number: B0345-021-001-1
Report Date: 12/01/21

SAMPLE RESULTS

Lab ID: L2163124-02
Client ID: MW-3
Sample Location: BUFFALO, NY

Date Collected: 11/16/21 13:11
Date Received: 11/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/24/21 17:11
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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	8.1		ug/l	0.50	0.16	1
Toluene	0.83	J	ug/l	2.5	0.70	1
Ethylbenzene	14		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: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

SAMPLE RESULTS

Lab ID: L2163124-02 Date Collected: 11/16/21 13:11

Client ID: MW-3 Date Received: 11/16/21

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
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	3.4		ug/l	2.5	0.70	1
o-Xylene	4.5		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
n-Butylbenzene	9.4		ug/l	2.5	0.70	1
sec-Butylbenzene	4.6		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	5.4		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	24		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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.6	J	ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	7.9	J	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	16		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	88		70-130

Project Name: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/24/21 10:36
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1576309-5					
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: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/24/21 10:36
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1576309-5					
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
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	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: 2424 HAMBURG TURNPIKE **Lab Number:** L2163124

Project Number: B0345-021-001-1 **Report Date:** 12/01/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/24/21 10:36
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1576309-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	116		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163124

Report Date: 12/01/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1576309-3 WG1576309-4								
Methylene chloride	110		100		70-130	10		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	120		110		70-130	9		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	92		100		63-130	8		20
1,1,2-Trichloroethane	95		97		70-130	2		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	120		120		67-130	0		20
Bromodichloromethane	100		110		67-130	10		20
trans-1,3-Dichloropropene	87		95		70-130	9		20
cis-1,3-Dichloropropene	87		94		70-130	8		20
Bromoform	97		98		54-136	1		20
1,1,2,2-Tetrachloroethane	94		94		67-130	0		20
Benzene	99		100		70-130	1		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	100		96		64-130	4		20
Bromomethane	110		110		39-139	0		20
Vinyl chloride	96		93		55-140	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163124

Report Date: 12/01/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1576309-3 WG1576309-4								
Chloroethane	130		120		55-138	8		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	80		81		36-147	1		20
Acetone	85		87		58-148	2		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	80		79		63-138	1		20
4-Methyl-2-pentanone	83		87		59-130	5		20
2-Hexanone	68		79		57-130	15		20
Bromochloromethane	92		96		70-130	4		20
1,2-Dibromoethane	93		100		70-130	7		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	79		86		41-144	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163124

Report Date: 12/01/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1576309-3 WG1576309-4								
Isopropylbenzene	120		110		70-130	9		20
p-Isopropyltoluene	110		110		70-130	0		20
n-Propylbenzene	120		110		69-130	9		20
1,2,3-Trichlorobenzene	76		82		70-130	8		20
1,2,4-Trichlorobenzene	87		92		70-130	6		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
Methyl Acetate	80		80		70-130	0		20
Cyclohexane	110		110		70-130	0		20
1,4-Dioxane	108		102		56-162	6		20
Freon-113	110		120		70-130	9		20
Methyl cyclohexane	98		100		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	118		115		70-130
Toluene-d8	109		107		70-130
4-Bromofluorobenzene	109		106		70-130
Dibromofluoromethane	107		108		70-130

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163124
Report Date: 12/01/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2163124-01A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)
L2163124-01B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)
L2163124-01C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)
L2163124-02A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)
L2163124-02B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)
L2163124-02C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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.

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163124
Project Number:	B0345-021-001-1	**Report Date:**	12/01/21

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

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, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 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, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/17/21

ALPHA Job #: L2163124

Project Information

Project Name:	2424 Hamburg Turnpike
Project Location:	Buffalo, NY
Project #	B0345-021-001-1
(Use Project name as Project #)	☐
Project Manager:	Brock Greene
ALPHAQuote #:	

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Client Information

Client:	Benchmark Environmental
Address:	2558 Hamburg Turnpike,Ste300
	Buffalo, NY 14218
Phone:	716-856-0599
Fax:	
Email:	bgreene@bm-tk.com

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☑ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☑

Other project specific requirements/comments:

Email results to:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: TCL 8260	Sample Specific Comments	Total Bottles
63124-01	MW-2	11/16/21	1434	Water	TJM	X		3
02	MW-3	11/16/21	1311	Water	TJM	X		3

	TCL 8260
Container Type	V
Preservative	B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Tanya Mann	11/16/21 1526	[signature] AL	11/16/21 15:45
[signature]	11/16/21 15:45	[signature]	11/17/21 0200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2163827
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	2424 HAMBURG TURNPIKE
Project Number:	B0345-021-001-1
Report Date:	12/06/21

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).

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

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2163827-01	INFLUENT VAPOR	SOIL_VAPOR	Not Specified	11/18/21 09:40	11/18/21

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163827
Project Number:	B0345-021-001-1	**Report Date:**	12/06/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163827
Project Number:	B0345-021-001-1	**Report Date:**	12/06/21

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on November 8, 2021. The canister certification results are provided as an addendum.

Petroleum Hydrocarbons in Air

L2163827-01 All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

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: 12/06/21

AIR

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

SAMPLE RESULTS

Lab ID: L2163827-01
Client ID: INFLUENT VAPOR
Sample Location:

Date Collected: 11/18/21 09:40
Date Received: 11/18/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/03/21 05:19
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.327	0.200	--	1.62	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	0.479	0.200	--	1.49	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

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

SAMPLE RESULTS

Lab ID: L2163827-01
Client ID: INFLUENT VAPOR
Sample Location:

Date Collected: 11/18/21 09:40
Date Received: 11/18/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	11.0	0.200	--	38.8	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	10.8	0.200	--	34.5	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	11.4	0.200	--	39.2	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	24.3	0.200	--	113	0.934	--		1
Heptane	2.05	0.200	--	8.40	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	8.30	0.200	--	31.3	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	16.5	0.200	--	71.7	0.869	--		1

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

SAMPLE RESULTS

Lab ID: L2163827-01
Client ID: INFLUENT VAPOR
Sample Location:

Date Collected: 11/18/21 09:40
Date Received: 11/18/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	30.5	0.400	--	132	1.74	--		1
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	8.45	0.200	--	36.7	0.869	--		1
4-Ethyltoluene	6.80	0.200	--	33.4	0.983	--		1
1,3,5-Trimethylbenzene	6.60	0.200	--	32.4	0.983	--		1
1,2,4-Trimethylbenzene	29.9	0.200	--	147	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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown benzene	13	J	ppbV		1
Butane, 2-Methyl-	46	NJ	ppbV		1
Unknown	15	J	ppbV		1
Cyclohexane, methyl-	8.8	NJ	ppbV		1
Pentane, 2-methyl-	32	NJ	ppbV		1
Unknown	40	J	ppbV		1
2-Pentene, 3-methyl-, (E)-	12	NJ	ppbV		1
Pentane, 3-methyl-	29	NJ	ppbV		1
unknown alkane	32	J	ppbV		1

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

SAMPLE RESULTS

Lab ID: L2163827-01
Client ID: INFLUENT VAPOR
Sample Location:

Date Collected: 11/18/21 09:40
Date Received: 11/18/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Pentane	23	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/02/21 16:18

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1578426-4								
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: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/02/21 16:18

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1578426-4								
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: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1
Lab Number: L2163827
Report Date: 12/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/02/21 16:18

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1578426-4								
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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163827

Report Date: 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1578426-3								
Dichlorodifluoromethane	84		-		70-130	-		
Chloromethane	87		-		70-130	-		
Freon-114	83		-		70-130	-		
Vinyl chloride	83		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Bromomethane	84		-		70-130	-		
Chloroethane	70		-		70-130	-		
Ethanol	82		-		40-160	-		
Vinyl bromide	90		-		70-130	-		
Acetone	98		-		40-160	-		
Trichlorofluoromethane	109		-		70-130	-		
Isopropanol	91		-		40-160	-		
1,1-Dichloroethene	90		-		70-130	-		
Tertiary butyl Alcohol	89		-		70-130	-		
Methylene chloride	87		-		70-130	-		
3-Chloropropene	98		-		70-130	-		
Carbon disulfide	79		-		70-130	-		
Freon-113	96		-		70-130	-		
trans-1,2-Dichloroethene	82		-		70-130	-		
1,1-Dichloroethane	89		-		70-130	-		
Methyl tert butyl ether	94		-		70-130	-		
2-Butanone	97		-		70-130	-		
cis-1,2-Dichloroethene	89		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163827

Report Date: 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1578426-3								
Ethyl Acetate	88		-		70-130	-		
Chloroform	86		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
1,2-Dichloroethane	104		-		70-130	-		
n-Hexane	86		-		70-130	-		
1,1,1-Trichloroethane	123		-		70-130	-		
Benzene	79		-		70-130	-		
Carbon tetrachloride	120		-		70-130	-		
Cyclohexane	83		-		70-130	-		
1,2-Dichloropropane	99		-		70-130	-		
Bromodichloromethane	100		-		70-130	-		
1,4-Dioxane	88		-		70-130	-		
Trichloroethene	99		-		70-130	-		
2,2,4-Trimethylpentane	89		-		70-130	-		
Heptane	107		-		70-130	-		
cis-1,3-Dichloropropene	107		-		70-130	-		
4-Methyl-2-pentanone	114		-		70-130	-		
trans-1,3-Dichloropropene	97		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	81		-		70-130	-		
2-Hexanone	106		-		70-130	-		
Dibromochloromethane	112		-		70-130	-		
1,2-Dibromoethane	93		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163827

Report Date: 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1578426-3								
Tetrachloroethene	88		-		70-130	-		
Chlorobenzene	84		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	117		-		70-130	-		
Styrene	90		-		70-130	-		
1,1,2,2-Tetrachloroethane	86		-		70-130	-		
o-Xylene	97		-		70-130	-		
4-Ethyltoluene	87		-		70-130	-		
1,3,5-Trimethylbenzene	93		-		70-130	-		
1,2,4-Trimethylbenzene	98		-		70-130	-		
Benzyl chloride	106		-		70-130	-		
1,3-Dichlorobenzene	95		-		70-130	-		
1,4-Dichlorobenzene	92		-		70-130	-		
1,2-Dichlorobenzene	91		-		70-130	-		
1,2,4-Trichlorobenzene	93		-		70-130	-		
Hexachlorobutadiene	97		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1578426-5 QC Sample: L2163827-01 Client ID: INFLUENT VAPOR						
Dichlorodifluoromethane	0.327	0.316	ppbV	3		25
Chloromethane	ND	ND	ppbV	NC		25
Freon-114	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
Isopropanol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.479	0.521	ppbV	8		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1578426-5 QC Sample: L2163827-01 Client ID: INFLUENT VAPOR						
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	11.0	10.8	ppbV	2		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	10.8	10.9	ppbV	1		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	11.4	11.3	ppbV	1		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	24.3	24.0	ppbV	1		25
Heptane	2.05	2.06	ppbV	0		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1578426-5 QC Sample: L2163827-01 Client ID: INFLUENT VAPOR						
Toluene	8.30	8.57	ppbV	3		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	16.5	17.2	ppbV	4		25
p/m-Xylene	30.5	31.4	ppbV	3		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	8.45	8.73	ppbV	3		25
4-Ethyltoluene	6.80	7.49	ppbV	10		25
1,3,5-Trimethylbenzene	6.60	6.97	ppbV	5		25
1,2,4-Trimethylbenzene	29.9	31.0	ppbV	4		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: 2424 HAMBURG TURNPIKE
Lab Number: L2163827
Project Number: B0345-021-001-1
Report Date: 12/06/21

SAMPLE RESULTS

Lab ID: L2163827-01
Client ID: INFLUENT VAPOR
Sample Location:

Date Collected: 11/18/21 09:40
Date Received: 11/18/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Analytical Method: 96,APH
Analytical Date: 12/03/21 05:19
Analyst: TS

Quality Control Information

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	35		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	1600		ug/m3	10	--	1
Toluene	35		ug/m3	0.90	--	1
Ethylbenzene	74		ug/m3	0.90	--	1
p/m-Xylene	130		ug/m3	0.90	--	1
o-Xylene	35		ug/m3	0.90	--	1
Naphthalene	24		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	160		ug/m3	10	--	1
C9-C10 Aromatics Total	700		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	109		50-200
Bromochloromethane	93		50-200
Chlorobenzene-d5	93		50-200

Project Name: 2424 HAMBURG TURNPIKE **Lab Number:** L2163827

Project Number: B0345-021-001-1 **Report Date:** 12/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 12/02/21 16:18
Analyst: TS

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG1578429-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-021-001-1

Lab Number: L2163827

Report Date: 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1578429-3								
1,3-Butadiene	77		-		70-130	-		
Methyl tert butyl ether	86		-		70-130	-		
Benzene	81		-		70-130	-		
C5-C8 Aliphatics, Adjusted	85		-		70-130	-		
Toluene	90		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	90		-		70-130	-		
o-Xylene	92		-		70-130	-		
Naphthalene	115		-		50-150	-		
C9-C12 Aliphatics, Adjusted	97		-		70-130	-		
C9-C10 Aromatics Total	84		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1578429-5 QC Sample: L2163827-01 Client ID: INFLUENT VAPOR						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	35	36	ug/m3	3		30
C5-C8 Aliphatics, Adjusted	1600	1500	ug/m3	6		30
Toluene	35	36	ug/m3	3		30
Ethylbenzene	74	77	ug/m3	4		30
p/m-Xylene	130	130	ug/m3	0		30
o-Xylene	35	37	ug/m3	6		30
Naphthalene	24	20	ug/m3	18		30
C9-C12 Aliphatics, Adjusted	160	160	ug/m3	0		30
C9-C10 Aromatics Total	700	730	ug/m3	4		30

Project Name: 2424 HAMBURG TURNPIKE

Lab Number: L2163827

Project Number: B0345-021-001-1

Report Date: 12/06/21

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2163827-01	INFLUENT VAPOR	2790	2.7L Can	11/08/21	369713	L2159737-03	Pass	-29.7	0.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/02/21 21:23
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
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
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		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
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		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
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159737

Project Number: CANISTER QC BAT **Report Date:** 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		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
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		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
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		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
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		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
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		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
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/02/21 21:23
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		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	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159737
Report Date: 12/06/21

Air Canister Certification Results

Lab ID: L2159737-03
Client ID: CAN 235 SHELF 20
Sample Location:

Date Collected: 10/29/21 14:00
Date Received: 11/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	96		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159737

Project Number: CANISTER QC BAT **Report Date:** 12/06/21

AIR CAN CERTIFICATION RESULTS

Lab ID:	L2159737-03	Date Collected:	10/29/21 14:00
Client ID:	CAN 235 SHELF 20	Date Received:	11/01/21
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	11/02/21 21:23		
Analyst:	TS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-021-001-1

Lab Number: L2163827
Report Date: 12/06/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2163827-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		APH-10(30),TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163827
Project Number:	B0345-021-001-1	**Report Date:**	12/06/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163827
Project Number:	B0345-021-001-1	**Report Date:**	12/06/21

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2163827
Project Number:	B0345-021-001-1	**Report Date:**	12/06/21

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.

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

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

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: 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, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 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, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **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

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

AIR ANALYSIS

ALPHA ANALYTICAL — CHAIN OF CUSTODY

PAGE 1 OF 1

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 11/19/21

ALPHA Job #: L2163827

Client Information

Client: Benchmark
Address: 2558 Hamburg Turnpike
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 2424 Hamburg Turnpike
Project Location: " "
Project #: B0345-021-001-1
Project Manager: Brock Greene
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-15 VOCs+TICs	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
63827-01	Influent Vapor	~~11-18-21~~ 11-19-21	939	940	-29.8	-0.4	SVE	BMG	2.7L	2740	GRB 0129	X	X				PID = 0.2 ppm

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
Brock Greene	11-18-21/1200		
AAC	11/18/21 16:40	AAL	11/18/21 15:30
Wendy Morency	11/19/21 6:00	AAL	11/19/21 0120
			11/19/21 0648

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

APPENDIX D

SEWER DISCHARGE PERMIT AND ANALYTICAL DATA

APR 2 2 2021

County of Erie

MARK C. POLONCARZ
County Executive

THOMAS R. HERSEY, JR
Commissioner

DEPARTMENT OF ENVIRONMENT AND PLANNING

JOSEPH L. FIEGL, P.E.
Deputy Commissioner

April 19, 2021

Brock Greene, Senior Project Environmental Scientist
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218

RE: Erie County Sewer District No.6 (ECSD No.6)
Industrial Wastewater Discharge Permit LA-04
2424 Hamburg Turnpike, Lackawanna, New York

Dear Mr. Greene:

Enclosed please find an original copy of the Industrial Wastewater Discharge Permit for above referenced site. The Permit must be maintained on site and available for review upon request. Please note that the initial monitoring report, due August 8, 2021, is to include EPA 625, EPA 608 and Total Oil & Grease analysis.

Please review the permit carefully. If you should have any questions or concerns you may reach me at 823-5888, ext 223.

Sincerely,

Laura A. Surdej
Industrial Wastewater Specialist

Cc: G. Absolom/K. Kaminski/6.2.4 2424 Hamburg Turnpike
E. Eigenbrod
M. Dembski
Paul H Werthman, P.E. (Turnkey)
Tom Forbes, P.E. (Turnkey)

ERIE COUNTY SEWER DISTRICT #6

Industrial Wastewater Discharge Permit

Permit No. LA-04

In accordance with all terms and conditions of the Rules and Regulations for Erie County Sewer Districts, as adopted by Erie County Sewer District #6 (ECSD #6) and with any applicable provision of Federal or State law or regulation;

Permission is Hereby Granted To 2424 Hamburg Turnpike LLC

(Address) 2424 Hamburg Turnpike

Lackawanna, New York 14218

(Responsible Person) Paul H. Werthman P.E.

(Title) Managing Member

(Telephone No.) (716)856-0635 (Emergency Telephone No.)

(Standard Industrial Classification Code) (remedial site)

(Categorical Classification)

For the contribution of wastewaters containing regulated pollutants into the ECSD #6 sewerage system.

This permit, including the general provisions, is granted in accordance with the application filed on March 23, 2021 in the office of the ECSD #6 and in conformity with any plans, specifications and other data submitted to ECSD #6 in support of the above application, all of which are filed with and considered a part of this permit.

Effective this 10th day of May, 2021

To expire the 9th day of May, 2024

Glenn H. Absolom, Chief Treatment Plant Supervisor April 16, 2021 Date

ERIE COUNTY SEWER DISTRICT #6

DISCHARGE MONITORING REPORTING REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04

Effective Date May 10, 2021

During the period beginning the effective date of this permit and lasting until its expiration date, discharge monitoring results shall be summarized and reported by the permittee by the dates specified below:

Sample Point	Initial Report	Subsequent Reports(1)
001	August 8, 2021	Every February 8 and August 8

Report due dates cover the preceding six (6) month's report period.

i.e.	Report Date	Report Covers This Reporting Period
	August 8	February 9 - August 8
	February 8	August 9 - February 8

ERIE COUNTY SEWER DISTRICT #6

DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04 Effective Date May 10, 2021

During the period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility's outfall(s) shall be limited and monitored by the permittee as specified below.

Sample Point	Parameter	Discharge Limits	Sample Type	Sampling Frequency
001	pH	5.0-12.0	Grab	One Day
	Flow	25,000 gallons		Daily
	T. Phenols	monitor	Grab	One Day
	T. Cyanide (2)	0.48 mg/l	Grab	One Day
	Barium	monitor	Grab	One Day
	Iron	Monitor	Grab	One Day
	Arsenic (2)	0.18 mg/l	Grab	One Day
	Cadmium (2)	0.26 mg/l	Grab	One Day
	Chromium (2)	4.85 mg/l	Grab	One Day
	Copper (2)	0.57 mg/l	Grab	One Day
	Lead (2)	0.40 mg/l	Grab	One Day
	Mercury (2)	0.06 mg/l	Grab	One Day
	Nickel (2)	0.88 mg/l	Grab	One Day
	Selenium (2)	0.17 mg/l	Grab	One Day
	Silver (2)	0.01 mg/l	Grab	One Day
	Zinc (2)	6.35 mg/l	Grab	One Day
	Total Oil & Grease (1)	100 mg/l	Grab	One Day
	TTO:	2.13 mg/l		
	EPA 624		Grab	One Day
	EPA 625 (1)		Grab	One Day
	EPA 608 (1)		Grab	One Day

All limits are in mg/l except pH and flow.
(1) See Special Requirements, page 4.
(2) Proposed local limits. See special requirements, page 4.

ERIE COUNTY SEWER DISTRICT #6

SPECIAL REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04

Effective Date May 10, 2021

1. The initial monitoring report, due August 8, 2021 shall include analysis for EPA 608, EPA 625 and Total Oil & Grease. If results are within acceptable limits, then subsequent analyses must only be reported annually, in August monitoring reports.

2. Total metals to include: As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn.

3. Proposed Local Limit parameters are included in the monitoring. These limits are pending EPA approval and may be subject to change.

4. The Total Oil & Grease limit is based on the required test method EPA 1664A.

5. Flow should be recorded daily. Semi-annual reports shall include flow data for sampling period.

6. Once per year, the flow meter must be calibrated and certified by an outside source. A copy of this recertification must be submitted.

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\Discharge Permit\Figure 1; Site Plan (Aerial).dwg

DATE: OCTOBER 2019
DRAFTED BY: CCB

SITE PLAN (AERIAL)

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915298
LACKAWANNA, NEW YORK

PREPARED FOR
2424 HAMBURG TURNPIKE, LLC

FIGURE 1

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0345-015-001

GENERAL PROVISIONS

1. All submittals and correspondence shall be addressed to:

   Erie County Division of Sewerage Management
   Southtowns Water Resource Recovery Facility
   c/o Laura Surdej
   S-3690 Lakeshore Blvd.
   Buffalo, New York 14219

2. This permit shall not be transferred, reassigned or sold to a new owner, new user, different premises or a new or changed operation without the written approval of the District.

3. This permit shall be valid for a period of three years from the date of issuance. The applications for renewing this permit must be submitted at least 90 days prior to the expiration of this permit.

4. As U.S.E.P.A. or N.Y.S.D.E.C. adds or amended specific effluent guidelines, or as the Board deems necessary to protect employees or the sewerage works or operations, the conditions of this Industrial Wastewater Discharge Permit may be amended. Written notice of proposed changes shall be sent to the permittee.

5. When the permitted discharge is substantially altered in volume, character of strength, the permittee must notify the Board in writing 30 days prior to altering the discharge. If the Board determines that a new permit is necessary the permittee shall apply for a new permit for the altered discharge.

6. This permit may be revoked by the Board, if after a hearing, a violation is determined to exist and no corrective measures are taken within 30 days of such determination. If this permit is revoked, all discharges covered by this permit shall cease immediately.

7. The permittee, shall when requested, complete an Industrial Waste Survey. The permittee may be requested to update the survey annually.

8. The permittee shall submit monitoring reports as per the requirements listed in the attached Monitoring and Reporting Requirements.

9. Methods employed for flow measurements, sample collection and analyses shall conform to the Erie County Sewer District's "Sampling, Measurement and Analytical Guidelines."

10. The permittee shall notify immediately of changes that occur at the facility affecting the potential for a slug discharge to allow for reevaluation of slug control plan or other actions to prevent such discharges.

11. The permittee, shall maintain a Slug Control Plan as outlined in the "Spill Control/Solvent Management Guidelines".

12. In the event that any slug discharge or accidental discharge occurs at the facility for which this permit is issued the permittee shall immediately notify ECSD #6 by telephone (823-5888)of the quantity and character of such discharge.

    Within five days following all such discharges, the permittee shall submit a report describing the character and duration of the discharge, the cause of the discharge, and measures taken or that will be taken to prevent a recurrence of such discharge.

13. All records and information resulting from the monitoring activities required by the Permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three years. If it is deemed necessary, this period shall be extended as is needed. Additionally, these records must be available for inspection and copying during normal business hours.

14. The monitoring report, which shall consist of the analysis, field log(s), map, certification statement and chain of possession log, must be submitted by the industry and not by a contract or consulting firm.

15. Monitoring reports must contain the following signed certification statement:

    I certify, under penalty of law, that this document and all attachments were prepared under/by direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

16. If the permittee is not meeting the limits imposed by this permit, the permittee shall submit a compliance schedule for meeting the limits. The time limits proposed to meet full compliance must be approved by the Board. If a compliance schedule is established

because of a change in a Federal Categorical Pretreatment Regulation, then the federally established deadline will be the compliance time allowed.

No later than fourteen calendar days following each milestone date identified in the Schedule of Compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial action taken, and the probability of meeting the next schedule date requirement.

All reports, plans and/or specifications that propose new or modified waste treatment and/or disposal facilities must be approved, and signed and sealed by a professional engineer licensed to practice in New York State.

17. If sampling performed by the permittee indicates a violation, the permittee shall notify the Erie County Department of Environment and Planning, Division of Sewerage Management (823-8188) within 24 hours of becoming aware of the violation. The permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Division of Sewerage Management within 30 days after becoming aware of the violation.

18. The permittee shall be subject to a premium assessment not to exceed ten thousand dollars for each violation of the limits or requirements of this permit.

Each day a violation is shown to exist shall constitute a separate violation. A day shall be a twenty-four hour period beginning at 12:01 A.M. and ending the following 12:01 A.M. This permit may be revoked, if after a hearing, a violation is determined to exist and corrective measures are not taken within 30 days of such determination.

Nothing in this section shall be construed to limit the right of the Board to enforce, or avail themselves of the benefits of any and all other applicable laws and ordinances including injunctive relief.

19. The following definitions shall apply to this permit:

a. The "monthly average" discharge shall mean the arithmetic average of daily values, reported in appropriate units, for all calendar days during any calendar month that flow measurement and/or wastewater discharge sample analysis are required.

b. The "daily maximum" discharge shall mean the flow measurements and/or wastewater discharge analysis for any 24 hour period that reasonably represents the calendar day, when such measurements and analyses are taken as required.

c. "Daily" - each operating day.

d. "Weekly" - one day each week and a normal operating day.

e. "Monthly" - one day each month and normal operating day.

f. "Composite" shall mean a combination of individual (or continuously taken) samples obtained at regular intervals over the entire discharge day. The volume of each sample shall be proportional to the discharge flow rate. For continuous discharge, a minimum of forty-eight individual grab samples (at half hour intervals) shall be collected and combined to constitute a 24-hour composite sample. For intermittent discharges of less than 4 hours duration grab samples shall be taken at a minimum of 15 minute intervals.

g. "Grab" shall mean an individual sample collected over a period of time not exceeding fifteen minutes.

h. "Board" shall mean the Board of Managers of an Erie County Sewer District or its authorized representatives.

TABLE 2

SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
Lackawanna, New York

Parameter [1]	Effluent 07/08/21	Discharge Permit Limitations [2]
Volatile Organic Compounds (VOCs - Method 624) - mg/L		
Bromomethane	0.0014 J	--
Acetone	0.0024 J	--
Dibromomethane	0.00029 J	
TOTAL VOCs (mg/L)	**0.0041**	--
Semi-Volatile Organic Compounds (SVOCs - Method 625) - mg/L		
All Compounds Non-Detect		--
Polychlorinated Biphenyls (PCBs) (Method 608)- mg/L		
All Compounds Non-Detect		--
Organochlorine Pesticide Compounds (Method 608) - mg/L		
All Compounds Non-Detect		--
Metal Compounds (Method 200.7 Rev 4.4) - mg/L [3]		
Barium	0.054	**Monitor**
Copper	0.005 J	**0.57**
Iron	0.618	**Monitor**
TOTAL Metals (mg/L)	**0.677 J**	**Monitor**
General Chemistry - mg/L		
Cyanide, Total	ND	**Monitor**
Phenolics, Total Recoverable	0.008 J	**Monitor**
Oil & Grease	1 J	**100**
Ph	7.5	**5-12**
Total Toxic Organic Pollutants (TTO) [4]	0.0041	**2.13**

Notes:

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per the Nov 2019 Erie County Sewer District No. 6 Discharge Permit LA-04
3. Metals include Ag, As, Ba, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, and Zn
4. TTO is determined by totaling the reported compound concentrations detected via EPA Methods 608, 624, & 625.

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.
NS = Parameter not sampled for at this time.

TABLE 2

SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
Lackawanna, New York

Parameter [1]	Effluent 01/13/22	Discharge Permit Limitations [2]
Volatile Organic Compounds (VOCs - Method 624) - mg/L		
All Compounds Non-Detect		--
Semi-Volatile Organic Compounds (SVOCs - Method 625) - mg/L		
NS		--
Polychlorinated Biphenyls (PCBs) (Method 608)- mg/L		
NS		--
Organochlorine Pesticide Compounds (Method 608) - mg/L		
NS		--
Metal Compounds (Method 200.7 Rev 4.4) - mg/L [3]		
Arsenic	0.004 J	**0.18**
Barium	0.058	**Monitor**
Chromium	0.002 J	**4.85**
Copper	0.003 J	**0.57**
Iron	2.31	**Monitor**
Zinc	0.011 J	**6.35**
TOTAL Metals (mg/L)	**2.388 J**	**Monitor**
General Chemistry - mg/L		
Cyanide, Total	ND	**0.48**
Phenolics, Total Recoverable	0.006 J	**Monitor**
Oil & Grease	NS	**100**
Ph	7.6	**5-12**
Total Toxic Organic Pollutants (TTO) [4]	ND	**2.13**

Notes:

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per the May 2021 Erie County Sewer District No. 6 Discharge Permit LA-04
3. Metals include Ag, As, Ba, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, and Zn
4. TTO is determined by totaling the reported compound concentrations detected via EPA Methods 608, 624, & 625.

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.
ND = Parameter is non-detect.
NS = Parameter not sampled for at this time.

ANALYTICAL REPORT

Lab Number:	L2136732
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	2424 HAMBURG TURNPIKE SITE
Project Number:	B0345-021-001-001
Report Date:	07/30/21

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).

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

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2136732-01	EFFLUENT	WATER	Not Specified	07/08/21 13:30	07/08/21

Project Name:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

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:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

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.

Volatile Organics by Method 624

The WG1522510-3 LCS recovery, associated with L2136732-01, is above the acceptance criteria for vinyl acetate (190%), acrolein (195%), and acrylonitrile (145%); however, the associated samples are non-detect to the RL for these target analytes. The results of the original analysis are reported.

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

Authorized Signature:  Sebastian Corbin

Title: Technical Director/Representative Date: 07/30/21

ORGANICS

VOLATILES

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified

Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 07/09/21 15:36
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	1.4	J	ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01 Date Collected: 07/08/21 13:30

Client ID: EFFLUENT Date Received: 07/08/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	2.4	J	ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	ND		ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	ND		ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	0.29	J	ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	100		60-140
Fluorobenzene	101		60-140
4-Bromofluorobenzene	93		60-140

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 07/09/21 14:47
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1522510-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
Trichlorofluoromethane	ND		ug/l	5.0	0.28
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	1.8	J	ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17
Trichloroethene	ND		ug/l	1.0	0.33

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 07/09/21 14:47
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1522510-4					
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
p/m-Xylene	ND		ug/l	2.0	0.30
o-xylene	ND		ug/l	1.0	0.34
Xylenes, Total	ND		ug/l	1.0	0.30
Styrene	ND		ug/l	1.0	0.37
Acetone	ND		ug/l	10	2.4
Carbon disulfide	ND		ug/l	5.0	0.28
2-Butanone	ND		ug/l	10	1.0
Vinyl acetate	ND		ug/l	10	0.41
4-Methyl-2-pentanone	ND		ug/l	10	0.19
2-Hexanone	ND		ug/l	10	0.55
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33
Dibromomethane	0.39	J	ug/l	1.0	0.23

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		60-140
Fluorobenzene	102		60-140
4-Bromofluorobenzene	92		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522510-3								
Methylene chloride	115		-		60-140	-		28
1,1-Dichloroethane	130		-		50-150	-		49
Chloroform	105		-		70-135	-		54
Carbon tetrachloride	105		-		70-130	-		41
1,2-Dichloropropane	110		-		35-165	-		55
Dibromochloromethane	110		-		70-135	-		50
1,1,2-Trichloroethane	95		-		70-130	-		45
2-Chloroethylvinyl ether	90		-		1-225	-		71
Tetrachloroethene	95		-		70-130	-		39
Chlorobenzene	95		-		65-135	-		53
Trichlorofluoromethane	115		-		50-150	-		84
1,2-Dichloroethane	105		-		70-130	-		49
1,1,1-Trichloroethane	105		-		70-130	-		36
Bromodichloromethane	100		-		65-135	-		56
trans-1,3-Dichloropropene	85		-		50-150	-		86
cis-1,3-Dichloropropene	85		-		25-175	-		58
Bromoform	130		-		70-130	-		42
1,1,2,2-Tetrachloroethane	120		-		60-140	-		61
Benzene	110		-		65-135	-		61
Toluene	95		-		70-130	-		41
Ethylbenzene	100		-		60-140	-		63
Chloromethane	95		-		1-205	-		60
Bromomethane	85		-		15-185	-		61

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522510-3								
Vinyl chloride	105		-		5-195	-		66
Chloroethane	120		-		40-160	-		78
1,1-Dichloroethene	120		-		50-150	-		32
trans-1,2-Dichloroethene	120		-		70-130	-		45
cis-1,2-Dichloroethene	115		-		60-140	-		30
Trichloroethene	110		-		65-135	-		48
1,2-Dichlorobenzene	100		-		65-135	-		57
1,3-Dichlorobenzene	95		-		70-130	-		43
1,4-Dichlorobenzene	100		-		65-135	-		57
p/m-Xylene	95		-		60-140	-		30
o-xylene	95		-		60-140	-		30
Styrene	90		-		60-140	-		30
Acetone	132		-		40-160	-		30
Carbon disulfide	115		-		60-140	-		30
2-Butanone	120		-		60-140	-		30
Vinyl acetate	**190**	Q	-		60-140	-		30
4-Methyl-2-pentanone	108		-		60-140	-		30
2-Hexanone	112		-		60-140	-		30
Acrolein	**195**	Q	-		60-140	-		30
Acrylonitrile	**145**	Q	-		60-140	-		60
Dibromomethane	105		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE

Project Number: B0345-021-001-001

Lab Number: L2136732

Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522510-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	102				60-140
Fluorobenzene	102				60-140
4-Bromofluorobenzene	91				60-140

SEMIVOLATILES

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified

Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 07/13/21 16:17
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/13/21 00:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.00	0.407	1
Benzidine[1]	ND		ug/l	20.0	12.1	1
1,2,4-Trichlorobenzene	ND		ug/l	5.00	1.49	1
Hexachlorobenzene	ND		ug/l	2.00	0.952	1
Bis(2-chloroethyl)ether	ND		ug/l	2.00	0.600	1
2-Chloronaphthalene	ND		ug/l	2.00	0.319	1
3,3'-Dichlorobenzidine	ND		ug/l	5.00	0.457	1
2,4-Dinitrotoluene	ND		ug/l	5.00	0.636	1
2,6-Dinitrotoluene	ND		ug/l	5.00	0.631	1
Azobenzene[1]	ND		ug/l	2.00	0.889	1
Fluoranthene	ND		ug/l	2.00	0.736	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.00	0.371	1
4-Bromophenyl phenyl ether	ND		ug/l	2.00	0.447	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.00	0.822	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.00	0.585	1
Hexachlorobutadiene	ND		ug/l	2.00	0.921	1
Hexachlorocyclopentadiene[1]	ND		ug/l	10.0	1.36	1
Hexachloroethane	ND		ug/l	2.00	0.973	1
Isophorone	ND		ug/l	5.00	0.546	1
Naphthalene	ND		ug/l	2.00	0.896	1
Nitrobenzene	ND		ug/l	2.00	0.788	1
NDPA/DPA[1]	ND		ug/l	2.00	0.783	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.00	0.630	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	1.70	1
Butyl benzyl phthalate	ND		ug/l	5.00	0.670	1
Di-n-butylphthalate	ND		ug/l	5.00	0.631	1
Di-n-octylphthalate	ND		ug/l	5.00	0.633	1
Diethyl phthalate	ND		ug/l	5.00	0.717	1

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01 Date Collected: 07/08/21 13:30

Client ID: EFFLUENT Date Received: 07/08/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/l	5.00	1.40	1
Benzo(a)anthracene	ND		ug/l	2.00	0.665	1
Benzo(a)pyrene	ND		ug/l	2.00	0.610	1
Benzo(b)fluoranthene	ND		ug/l	2.00	0.741	1
Benzo(k)fluoranthene	ND		ug/l	2.00	0.739	1
Chrysene	ND		ug/l	2.00	0.668	1
Acenaphthylene	ND		ug/l	2.00	0.930	1
Anthracene	ND		ug/l	2.00	0.791	1
Benzo(ghi)perylene	ND		ug/l	2.00	0.672	1
Fluorene	ND		ug/l	2.00	0.927	1
Phenanthrene	ND		ug/l	2.00	0.818	1
Dibenzo(a,h)anthracene	ND		ug/l	2.00	0.687	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.00	0.633	1
Pyrene	ND		ug/l	2.00	0.728	1
n-Nitrosodimethylamine[1]	ND		ug/l	2.00	0.407	1
2,4,6-Trichlorophenol	ND		ug/l	5.00	0.607	1
p-Chloro-m-cresol[1]	ND		ug/l	2.00	0.533	1
2-Chlorophenol	ND		ug/l	2.00	0.513	1
2,4-Dichlorophenol	ND		ug/l	5.00	0.554	1
2,4-Dimethylphenol	ND		ug/l	5.00	0.851	1
2-Nitrophenol	ND		ug/l	5.00	0.604	1
4-Nitrophenol	ND		ug/l	10.0	0.834	1
2,4-Dinitrophenol	ND		ug/l	20.0	1.21	1
4,6-Dinitro-o-cresol	ND		ug/l	10.0	1.20	1
Pentachlorophenol	ND		ug/l	5.00	0.622	1
Phenol	ND		ug/l	5.00	0.262	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		25-87
Phenol-d6	33		16-65
Nitrobenzene-d5	73		42-122
2-Fluorobiphenyl	75		46-121
2,4,6-Tribromophenol	103		45-128
4-Terphenyl-d14	91		47-138

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/13/21 11:27
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/12/21 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1522745-1					
Acenaphthene	ND		ug/l	2.00	0.407
Benzidine[1]	ND		ug/l	20.0	12.1
1,2,4-Trichlorobenzene	ND		ug/l	5.00	1.49
Hexachlorobenzene	ND		ug/l	2.00	0.952
Bis(2-chloroethyl)ether	ND		ug/l	2.00	0.600
2-Chloronaphthalene	ND		ug/l	2.00	0.319
3,3'-Dichlorobenzidine	ND		ug/l	5.00	0.457
2,4-Dinitrotoluene	ND		ug/l	5.00	0.636
2,6-Dinitrotoluene	ND		ug/l	5.00	0.631
Azobenzene[1]	ND		ug/l	2.00	0.889
Fluoranthene	ND		ug/l	2.00	0.736
4-Chlorophenyl phenyl ether	ND		ug/l	2.00	0.371
4-Bromophenyl phenyl ether	ND		ug/l	2.00	0.447
Bis(2-chloroisopropyl)ether	ND		ug/l	2.00	0.822
Bis(2-chloroethoxy)methane	ND		ug/l	5.00	0.585
Hexachlorobutadiene	ND		ug/l	2.00	0.921
Hexachlorocyclopentadiene[1]	ND		ug/l	10.0	1.36
Hexachloroethane	ND		ug/l	2.00	0.973
Isophorone	ND		ug/l	5.00	0.546
Naphthalene	ND		ug/l	2.00	0.896
Nitrobenzene	ND		ug/l	2.00	0.788
NDPA/DPA[1]	ND		ug/l	2.00	0.783
n-Nitrosodi-n-propylamine	ND		ug/l	5.00	0.630
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	1.70
Butyl benzyl phthalate	ND		ug/l	5.00	0.670
Di-n-butylphthalate	ND		ug/l	5.00	0.631
Di-n-octylphthalate	ND		ug/l	5.00	0.633
Diethyl phthalate	ND		ug/l	5.00	0.717
Dimethyl phthalate	ND		ug/l	5.00	1.40

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/13/21 11:27
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/12/21 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1522745-1					
Benzo(a)anthracene	ND		ug/l	2.00	0.665
Benzo(a)pyrene	ND		ug/l	2.00	0.610
Benzo(b)fluoranthene	ND		ug/l	2.00	0.741
Benzo(k)fluoranthene	ND		ug/l	2.00	0.739
Chrysene	ND		ug/l	2.00	0.668
Acenaphthylene	ND		ug/l	2.00	0.930
Anthracene	ND		ug/l	2.00	0.791
Benzo(ghi)perylene	ND		ug/l	2.00	0.672
Fluorene	ND		ug/l	2.00	0.927
Phenanthrene	ND		ug/l	2.00	0.818
Dibenzo(a,h)anthracene	ND		ug/l	2.00	0.687
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.00	0.633
Pyrene	ND		ug/l	2.00	0.728
n-Nitrosodimethylamine[1]	ND		ug/l	2.00	0.407
2,4,6-Trichlorophenol	ND		ug/l	5.00	0.607
p-Chloro-m-cresol[1]	ND		ug/l	2.00	0.533
2-Chlorophenol	ND		ug/l	2.00	0.513
2,4-Dichlorophenol	ND		ug/l	5.00	0.554
2,4-Dimethylphenol	ND		ug/l	5.00	0.851
2-Nitrophenol	ND		ug/l	5.00	0.604
4-Nitrophenol	ND		ug/l	10.0	0.834
2,4-Dinitrophenol	ND		ug/l	20.0	1.21
4,6-Dinitro-o-cresol	ND		ug/l	10.0	1.20
Pentachlorophenol	ND		ug/l	5.00	0.622
Phenol	ND		ug/l	5.00	0.262

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/13/21 11:27
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/12/21 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1522745-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	31		25-87
Phenol-d6	20		16-65
Nitrobenzene-d5	50		42-122
2-Fluorobiphenyl	55		46-121
2,4,6-Tribromophenol	76		45-128
4-Terphenyl-d14	70		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522745-2								
Acenaphthene	78		-		60-132	-		48
Benzidine[1]	8		-		0-70	-		30
1,2,4-Trichlorobenzene	74		-		57-130	-		50
Hexachlorobenzene	99		-		8-142	-		55
Bis(2-chloroethyl)ether	75		-		43-126	-		108
2-Chloronaphthalene	86		-		65-120	-		24
3,3'-Dichlorobenzidine	45		-		8-213	-		108
2,4-Dinitrotoluene	100		-		48-127	-		42
2,6-Dinitrotoluene	102		-		68-137	-		48
Azobenzene[1]	96		-		44-115	-		23
Fluoranthene	89		-		43-121	-		66
4-Chlorophenyl phenyl ether	88		-		38-145	-		61
4-Bromophenyl phenyl ether	94		-		65-120	-		43
Bis(2-chloroisopropyl)ether	74		-		63-139	-		76
Bis(2-chloroethoxy)methane	82		-		49-165	-		54
Hexachlorobutadiene	80		-		38-120	-		62
Hexachlorocyclopentadiene[1]	84		-		7-118	-		35
Hexachloroethane	67		-		55-120	-		52
Isophorone	84		-		47-180	-		93
Naphthalene	75		-		36-120	-		65
Nitrobenzene	111		-		54-158	-		62
NDPA/DPA[1]	85		-		45-112	-		36
n-Nitrosodi-n-propylamine	85		-		14-198	-		87

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522745-2								
Bis(2-ethylhexyl)phthalate	105		-		29-137	-		82
Butyl benzyl phthalate	105		-		1-140	-		60
Di-n-butylphthalate	95		-		8-120	-		47
Di-n-octylphthalate	108		-		19-132	-		69
Diethyl phthalate	93		-		1-120	-		100
Dimethyl phthalate	96		-		1-120	-		183
Benzo(a)anthracene	87		-		42-133	-		53
Benzo(a)pyrene	109		-		32-148	-		72
Benzo(b)fluoranthene	101		-		42-140	-		71
Benzo(k)fluoranthene	94		-		25-146	-		63
Chrysene	90		-		44-140	-		87
Acenaphthylene	87		-		54-126	-		74
Anthracene	84		-		43-120	-		66
Benzo(ghi)perylene	89		-		1-195	-		97
Fluorene	85		-		70-120	-		38
Phenanthrene	81		-		65-120	-		39
Dibenzo(a,h)anthracene	88		-		1-200	-		126
Indeno(1,2,3-cd)pyrene	90		-		1-151	-		99
Pyrene	87		-		70-120	-		49
n-Nitrosodimethylamine[1]	54		-		15-68	-		17
2,4,6-Trichlorophenol	106		-		52-129	-		58
p-Chloro-m-cresol[1]	102		-		68-130	-		73
2-Chlorophenol	83		-		36-120	-		61

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1522745-2								
2,4-Dichlorophenol	94		-		53-122	-		50
2,4-Dimethylphenol	87		-		42-120	-		58
2-Nitrophenol	101		-		45-167	-		55
4-Nitrophenol	69		-		13-129	-		131
2,4-Dinitrophenol	87		-		1-173	-		132
4,6-Dinitro-o-cresol	114		-		56-130	-		203
Pentachlorophenol	89		-		38-152	-		86
Phenol	42		-		17-120	-		64

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60				25-87
Phenol-d6	45				16-65
Nitrobenzene-d5	87				42-122
2-Fluorobiphenyl	84				46-121
2,4,6-Tribromophenol	116				45-128
4-Terphenyl-d14	93				47-138

PCBS

Project Name: 2424 HAMBURG TURNPIKE SITE
Lab Number: L2136732
Project Number: B0345-021-001-001
Report Date: 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified

Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/23/21 09:10
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/22/21 15:17
Cleanup Method: EPA 3665A
Cleanup Date: 07/23/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/23/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.050	0.008	1	A
Aroclor 1221	ND		ug/l	0.050	0.011	1	A
Aroclor 1232	ND		ug/l	0.050	0.023	1	A
Aroclor 1242	ND		ug/l	0.050	0.018	1	A
Aroclor 1248	ND		ug/l	0.050	0.023	1	A
Aroclor 1254	ND		ug/l	0.050	0.008	1	A
Aroclor 1260	ND		ug/l	0.050	0.017	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		37-123	A
Decachlorobiphenyl	73		38-114	A
2,4,5,6-Tetrachloro-m-xylene	75		37-123	B
Decachlorobiphenyl	73		38-114	B

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/23/21 08:32
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/22/21 15:17
Cleanup Method: EPA 3665A
Cleanup Date: 07/23/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/23/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1526864-1						
Aroclor 1016	ND		ug/l	0.050	0.008	A
Aroclor 1221	ND		ug/l	0.050	0.011	A
Aroclor 1232	ND		ug/l	0.050	0.023	A
Aroclor 1242	ND		ug/l	0.050	0.018	A
Aroclor 1248	ND		ug/l	0.050	0.023	A
Aroclor 1254	ND		ug/l	0.050	0.008	A
Aroclor 1260	ND		ug/l	0.050	0.017	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		37-123	A
Decachlorobiphenyl	76		38-114	A
2,4,5,6-Tetrachloro-m-xylene	75		37-123	B
Decachlorobiphenyl	70		38-114	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1526864-2									
Aroclor 1016	85		-		50-140	-		36	A
Aroclor 1260	89		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80				37-123	A
Decachlorobiphenyl	69				38-114	A
2,4,5,6-Tetrachloro-m-xylene	78				37-123	B
Decachlorobiphenyl	65				38-114	B

PESTICIDES

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified

Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/13/21 12:03
Analyst: AR

Extraction Method: EPA 608.3
Extraction Date: 07/13/21 00:44
Cleanup Method: EPA 3620B
Cleanup Date: 07/13/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.003	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.009	1	A
Heptachlor	ND		ug/l	0.020	0.005	1	A
Aldrin	ND		ug/l	0.020	0.005	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.007	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.017	1	A
Endrin ketone[1]	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.003	1	A
4,4'-DDE	ND		ug/l	0.040	0.003	1	A
4,4'-DDD	ND		ug/l	0.040	0.008	1	A
4,4'-DDT	ND		ug/l	0.040	0.008	1	A
Endosulfan I	ND		ug/l	0.020	0.008	1	A
Endosulfan II	ND		ug/l	0.040	0.003	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.017	1	A
Methoxychlor[1]	ND		ug/l	0.100	0.008	1	A
Toxaphene	ND		ug/l	0.400	0.126	1	A
Chlordane	ND		ug/l	0.200	0.042	1	A
cis-Chlordane[1]	ND		ug/l	0.020	0.005	1	A
trans-Chlordane[1]	ND		ug/l	0.020	0.008	1	A

Project Name: 2424 HAMBURG TURNPIKE SITE **Lab Number:** L2136732

Project Number: B0345-021-001-001 **Report Date:** 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01 Date Collected: 07/08/21 13:30

Client ID: EFFLUENT Date Received: 07/08/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		47-124	A
Decachlorobiphenyl	72		32-167	A
2,4,5,6-Tetrachloro-m-xylene	83		47-124	B
Decachlorobiphenyl	67		32-167	B

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/13/21 12:44
Analyst: AR

Extraction Method: EPA 608.3
Extraction Date: 07/12/21 08:06
Cleanup Method: EPA 3620B
Cleanup Date: 07/13/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1522748-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.003	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.009	A
Heptachlor	ND		ug/l	0.020	0.005	A
Aldrin	ND		ug/l	0.020	0.005	A
Heptachlor epoxide	ND		ug/l	0.020	0.007	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.017	A
Endrin ketone[1]	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.003	A
4,4'-DDE	ND		ug/l	0.040	0.003	A
4,4'-DDD	ND		ug/l	0.040	0.008	A
4,4'-DDT	ND		ug/l	0.040	0.008	A
Endosulfan I	ND		ug/l	0.020	0.008	A
Endosulfan II	ND		ug/l	0.040	0.003	A
Endosulfan sulfate	ND		ug/l	0.040	0.017	A
Methoxychlor[1]	ND		ug/l	0.100	0.008	A
Toxaphene	ND		ug/l	0.400	0.126	A
Chlordane	ND		ug/l	0.200	0.042	A
cis-Chlordane[1]	ND		ug/l	0.020	0.005	A
trans-Chlordane[1]	ND		ug/l	0.020	0.008	A

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/13/21 12:44
Analyst: AR

Extraction Method: EPA 608.3
Extraction Date: 07/12/21 08:06
Cleanup Method: EPA 3620B
Cleanup Date: 07/13/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1522748-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		47-124	A
Decachlorobiphenyl	71		32-167	A
2,4,5,6-Tetrachloro-m-xylene	54		47-124	B
Decachlorobiphenyl	63		32-167	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE

Project Number: B0345-021-001-001

Lab Number: L2136732

Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1522748-2									
Delta-BHC	100		-		19-140	-		52	A
Lindane	100		-		32-140	-		39	A
Alpha-BHC	99		-		37-140	-		36	A
Beta-BHC	85		-		17-147	-		44	A
Heptachlor	82		-		34-140	-		43	A
Aldrin	76		-		42-140	-		35	A
Heptachlor epoxide	85		-		37-142	-		26	A
Endrin	91		-		30-147	-		48	A
Endrin aldehyde	75		-		30-150	-		30	A
Endrin ketone[1]	94		-		30-150	-		30	A
Dieldrin	96		-		36-146	-		49	A
4,4'-DDE	91		-		30-145	-		35	A
4,4'-DDD	104		-		31-141	-		39	A
4,4'-DDT	103		-		25-160	-		42	A
Endosulfan I	86		-		45-153	-		28	A
Endosulfan II	93		-		1-202	-		53	A
Endosulfan sulfate	83		-		26-144	-		38	A
Methoxychlor[1]	103		-		30-150	-		30	A
cis-Chlordane[1]	77		-		45-140	-		35	A
trans-Chlordane[1]	77		-		45-140	-		35	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1522748-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66				47-124	A
Decachlorobiphenyl	76				32-167	A
2,4,5,6-Tetrachloro-m-xylene	66				47-124	B
Decachlorobiphenyl	69				32-167	B

METALS

Project Name: 2424 HAMBURG TURNPIKE SITE
Lab Number: L2136732
Project Number: B0345-021-001-001
Report Date: 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified
Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Barium, Total	0.054		mg/l	0.010	0.002	1	07/11/21 14:20	07/29/21 15:11	EPA 3005A	19,200.7	SV
Cadmium, Total	ND		mg/l	0.005	0.001	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Chromium, Total	ND		mg/l	0.010	0.002	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Copper, Total	0.005	J	mg/l	0.010	0.002	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Iron, Total	0.618		mg/l	0.050	0.009	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Lead, Total	ND		mg/l	0.010	0.003	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/11/21 14:48	07/13/21 20:05	EPA 245.1	3,245.1	OU
Nickel, Total	ND		mg/l	0.025	0.002	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Selenium, Total	ND		mg/l	0.010	0.004	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Silver, Total	ND		mg/l	0.007	0.003	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD
Zinc, Total	ND		mg/l	0.050	0.002	1	07/11/21 14:20	07/28/21 12:56	EPA 3005A	19,200.7	GD

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1522256-1										
Arsenic, Total	ND		mg/l	0.005	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Barium, Total	ND		mg/l	0.010	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Cadmium, Total	ND		mg/l	0.005	0.001	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Chromium, Total	ND		mg/l	0.010	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Copper, Total	0.003	J	mg/l	0.010	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Iron, Total	ND		mg/l	0.050	0.009	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Lead, Total	ND		mg/l	0.010	0.003	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Nickel, Total	ND		mg/l	0.025	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Selenium, Total	ND		mg/l	0.010	0.004	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Silver, Total	ND		mg/l	0.007	0.003	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD
Zinc, Total	ND		mg/l	0.050	0.002	1	07/11/21 14:20	07/28/21 11:09	19,200.7	GD

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1522259-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/11/21 14:48	07/13/21 19:48	3,245.1	OU

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE

Project Number: B0345-021-001-001

Lab Number: L2136732

Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1522256-2								
Arsenic, Total	112		-		85-115	-		
Barium, Total	115		-		85-115	-		
Cadmium, Total	104		-		85-115	-		
Chromium, Total	109		-		85-115	-		
Copper, Total	109		-		85-115	-		
Iron, Total	106		-		85-115	-		
Lead, Total	104		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Selenium, Total	112		-		85-115	-		
Silver, Total	105		-		85-115	-		
Zinc, Total	109		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1522259-2								
Mercury, Total	97		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1522256-3 QC Sample: L2136299-01 Client ID: MS Sample												
Arsenic, Total	ND	0.12	0.141	118		-	-		75-125	-		20
Barium, Total	0.025	2	2.33	115		-	-		75-125	-		20
Cadmium, Total	ND	0.053	0.056	105		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.220	110		-	-		75-125	-		20
Copper, Total	0.005J	0.25	0.280	112		-	-		75-125	-		20
Iron, Total	0.172	1	1.23	106		-	-		75-125	-		20
Lead, Total	ND	0.53	0.553	104		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.498	100		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.138	115		-	-		75-125	-		20
Silver, Total	ND	0.05	0.054	107		-	-		75-125	-		20
Zinc, Total	ND	0.5	0.548	110		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1522259-3 QC Sample: L2136732-01 Client ID: EFFLUENT												
Mercury, Total	ND	0.005	0.00479	96		-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE

Project Number: B0345-021-001-001

Lab Number: L2136732

Report Date: 07/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1522256-4 QC Sample: L2136299-01 Client ID: DUP Sample						
Iron, Total	0.172	0.172	mg/l	0		20
Zinc, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1522259-4 QC Sample: L2136732-01 Client ID: EFFLUENT						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

SAMPLE RESULTS

Lab ID: L2136732-01
Client ID: EFFLUENT
Sample Location: Not Specified

Date Collected: 07/08/21 13:30
Date Received: 07/08/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/13/21 09:40	07/13/21 13:55	121,4500CN-CE	CR
pH (H)	7.5		SU	-	NA	1	-	07/09/21 17:00	121,4500H+-B	AS
Oil & Grease, Hem-Grav	1.0	J	mg/l	2.0	0.46	1	07/23/21 15:30	07/23/21 22:00	74,1664A	IR
Phenolics, Total	0.008	J	mg/l	0.030	0.006	1	07/19/21 07:16	07/19/21 11:18	4,420.1	KP

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001
Lab Number: L2136732
Report Date: 07/30/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1523211-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/13/21 09:40	07/13/21 13:20	121,4500CN-CE	CR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1525205-1										
Phenolics, Total	ND		mg/l	0.030	0.006	1	07/19/21 07:16	07/19/21 11:14	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1527308-1										
Oil & Grease, Hem-Grav	0.84	J	mg/l	2.0	0.46	1	07/23/21 15:30	07/23/21 22:00	74,1664A	IR

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE

Project Number: B0345-021-001-001

Lab Number: L2136732

Report Date: 07/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1522366-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1523211-2								
Cyanide, Total	106		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1525205-2								
Phenolics, Total	93		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1527308-2								
Oil & Grease, Hem-Grav	79		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1523211-4 QC Sample: L2136195-05 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.209	104		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1525205-4 QC Sample: L2138046-01 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.32	80		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1527308-4 QC Sample: L2135615-160 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.2	30	**76**	Q	-	-		78-114	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1522366-2 QC Sample: L2136732-01 Client ID: EFFLUENT						
pH (H)	7.5	7.7	SU	3		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1523211-3 QC Sample: L2136195-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1525205-3 QC Sample: L2138046-01 Client ID: DUP Sample						
Phenolics, Total	ND	0.017J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1527308-3 QC Sample: L2135615-159 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	0.68J	mg/l	NC		18

Project Name: 2424 HAMBURG TURNPIKE SITE
Project Number: B0345-021-001-001

Lab Number: L2136732
Report Date: 07/30/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2136732-01A	Vial Na2S2O3 preserved	A	NA		3.8	Y	Absent		624.1(3)
L2136732-01B	Vial Na2S2O3 preserved	A	NA		3.8	Y	Absent		624.1(3)
L2136732-01C	Vial Na2S2O3 preserved	A	NA		3.8	Y	Absent		624.1(3)
L2136732-01D	Plastic 120ml unpreserved	A	7	7	3.8	Y	Absent		PH-4500(.01)
L2136732-01E	Plastic 250ml HNO3 preserved	A	<2	<2	3.8	Y	Absent		NI-UI(180),BA-UI(180),AG-UI(180),ZN-UI(180),FE-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),CU-UI(180),AS-UI(180),PB-UI(180)
L2136732-01F	Plastic 250ml NaOH preserved	A	>12	>12	3.8	Y	Absent		TCN-4500(14)
L2136732-01G	Amber 1000ml H2SO4 preserved	A	<2	<2	3.8	Y	Absent		NY-TPHENOL-420(28)
L2136732-01H	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		625.1(7)
L2136732-01J	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		625.1(7)
L2136732-01K	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		PESTICIDE-608.3(7)
L2136732-01L	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		PESTICIDE-608.3(7)
L2136732-01M	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		NYPCB-608-2L(365)
L2136732-01N	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		NYPCB-608-2L(365)
L2136732-01O	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		NYPCB-608-2L(365)
L2136732-01P	Amber 1000ml Na2S2O3	A	7	7	3.8	Y	Absent		NYPCB-608-2L(365)
L2136732-01Q	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		NY-OG-1664-LOW(28)
L2136732-01R	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		NY-OG-1664-LOW(28)

*Values in parentheses indicate holding time in days

Project Name:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

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:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

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:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

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:	2424 HAMBURG TURNPIKE SITE	**Lab Number:**	L2136732
Project Number:	B0345-021-001-001	**Report Date:**	07/30/21

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: 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, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 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, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 1

Date Rec'd in Lab: 7/9/21

ALPHA Job #: L2136732

Client Information
Client: Benchmark Env.
Address: 2558 Hamburg Turnpike
Buffalo, NY 14218
Phone: 716-225-3314
Fax:
Email: bgreene@bm-tk.com

Project Information
Project Name: 2424 Hamburg Turnpike Site
Project Location:
Project # B0345-021-001-001
(Use Project name as Project #) ☐
Project Manager: Brock Greene
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Metals to include As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 624	625	608 (PCB + Pest)	Oil + Grease	pH	TRP (phenols)	Metals (PP13) *	Cyanide	Total Bottle
36732-01	~~Blank~~ Effluent	7-8-21	1330	Water	BMG	X	X	X	X	X	X	X	X	17

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A	A	A	P	A	P	P
Preservative	H	H	H	B	A	D	K/E	E

Relinquished By:	Date/Time	Received By:	Date/Time
Brock Greene	7-8-21 1405		7/8/21 1405
AAC	7/9/21 1305		7/9/21 0110

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2202097
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	2424 HAMBURG TURNPIKE
Project Number:	B0345-025-001
Report Date:	01/27/22

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).

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

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2202097-01	EFFLUENT	WATER	BUFFALO, NY	01/13/22 09:40	01/13/22

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

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.

The analysis of Phenolics was subcontracted. A copy of the laboratory report is included as an addendum.

Please note: This data is only available in PDF format and is not available on Data Merger.

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

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 01/27/22

ORGANICS

VOLATILES

Project Name: 2424 HAMBURG TURNPIKE
Lab Number: L2202097
Project Number: B0345-025-001
Report Date: 01/27/22

SAMPLE RESULTS

Lab ID: L2202097-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 01/13/22 09:40
Date Received: 01/13/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 01/14/22 14:31
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
Trichloroethene	ND		ug/l	1.0	0.33	1

Project Name: 2424 HAMBURG TURNPIKE
Lab Number: L2202097
Project Number: B0345-025-001
Report Date: 01/27/22

SAMPLE RESULTS

Lab ID: L2202097-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Date Collected: 01/13/22 09:40
Date Received: 01/13/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	94		60-140
4-Bromofluorobenzene	108		60-140

Project Name: 2424 HAMBURG TURNPIKE **Lab Number:** L2202097

Project Number: B0345-025-001 **Report Date:** 01/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 01/14/22 11:41
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1594574-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
Trichloroethene	ND		ug/l	1.0	0.33
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001
Lab Number: L2202097
Report Date: 01/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 01/14/22 11:41
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1594574-4					
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	95		60-140
Fluorobenzene	94		60-140
4-Bromofluorobenzene	109		60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-025-001

Lab Number: L2202097

Report Date: 01/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1594574-3								
Methylene chloride	95		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Chloroform	105		-		70-135	-		54
Carbon tetrachloride	105		-		70-130	-		41
1,2-Dichloropropane	100		-		35-165	-		55
Dibromochloromethane	105		-		70-135	-		50
1,1,2-Trichloroethane	100		-		70-130	-		45
2-Chloroethylvinyl ether	80		-		1-225	-		71
Tetrachloroethene	115		-		70-130	-		39
Chlorobenzene	110		-		65-135	-		53
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Bromodichloromethane	105		-		65-135	-		56
trans-1,3-Dichloropropene	95		-		50-150	-		86
cis-1,3-Dichloropropene	100		-		25-175	-		58
Bromoform	110		-		70-130	-		42
1,1,2,2-Tetrachloroethane	110		-		60-140	-		61
Benzene	110		-		65-135	-		61
Toluene	115		-		70-130	-		41
Ethylbenzene	125		-		60-140	-		63
Chloromethane	85		-		1-205	-		60
Bromomethane	85		-		15-185	-		61
Vinyl chloride	90		-		5-195	-		66

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1594574-3								
Chloroethane	95		-		40-160	-		78
1,1-Dichloroethene	110		-		50-150	-		32
trans-1,2-Dichloroethene	105		-		70-130	-		45
Trichloroethene	105		-		65-135	-		48
1,2-Dichlorobenzene	120		-		65-135	-		57
1,3-Dichlorobenzene	110		-		70-130	-		43
1,4-Dichlorobenzene	115		-		65-135	-		57
Acrolein	125		-		60-140	-		30
Acrylonitrile	82		-		60-140	-		60

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	103				60-140
Fluorobenzene	99				60-140
4-Bromofluorobenzene	110				60-140

METALS

Project Name: 2424 HAMBURG TURNPIKE
Lab Number: L2202097
Project Number: B0345-025-001
Report Date: 01/27/22

SAMPLE RESULTS

Lab ID: L2202097-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Date Collected: 01/13/22 09:40
Date Received: 01/13/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.004	J	mg/l	0.005	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Barium, Total	0.058		mg/l	0.010	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Chromium, Total	0.002	J	mg/l	0.010	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Copper, Total	0.003	J	mg/l	0.010	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Iron, Total	2.31		mg/l	0.050	0.009	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Lead, Total	ND		mg/l	0.010	0.003	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Mercury, Total	ND		mg/l	0.00020	0.00009	1	01/19/22 13:00	01/19/22 17:15	EPA 245.1	3,245.1	AC
Nickel, Total	ND		mg/l	0.025	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Selenium, Total	ND		mg/l	0.010	0.004	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Silver, Total	ND		mg/l	0.007	0.003	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL
Zinc, Total	0.011	J	mg/l	0.050	0.002	1	01/19/22 10:44	01/20/22 00:17	EPA 3005A	19,200.7	DL

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001
Lab Number: L2202097
Report Date: 01/27/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1594802-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	01/19/22 13:00	01/19/22 16:25	3,245.1	AC

Prep Information

Digestion Method: EPA 245.1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1595062-1										
Arsenic, Total	0.002	J	mg/l	0.005	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Barium, Total	ND		mg/l	0.010	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Chromium, Total	ND		mg/l	0.010	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Copper, Total	ND		mg/l	0.010	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Iron, Total	ND		mg/l	0.050	0.009	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Lead, Total	ND		mg/l	0.010	0.003	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Nickel, Total	ND		mg/l	0.025	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Selenium, Total	ND		mg/l	0.010	0.004	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Silver, Total	ND		mg/l	0.007	0.003	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL
Zinc, Total	ND		mg/l	0.050	0.002	1	01/19/22 10:44	01/19/22 23:32	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-025-001

Lab Number: L2202097

Report Date: 01/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1594802-2								
Mercury, Total	98		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1595062-2								
Arsenic, Total	107		-		85-115	-		
Barium, Total	107		-		85-115	-		
Cadmium, Total	103		-		85-115	-		
Chromium, Total	102		-		85-115	-		
Copper, Total	104		-		85-115	-		
Iron, Total	104		-		85-115	-		
Lead, Total	102		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Selenium, Total	106		-		85-115	-		
Silver, Total	106		-		85-115	-		
Zinc, Total	103		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1594802-3 QC Sample: L2202574-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00484	97		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1594802-5 QC Sample: L2202575-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00490	98		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1595062-3 QC Sample: L2202404-01 Client ID: MS Sample												
Arsenic, Total	ND	0.12	0.135	112		-	-		75-125	-		20
Barium, Total	0.072	2	2.18	105		-	-		75-125	-		20
Cadmium, Total	ND	0.053	0.053	100		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.201	100		-	-		75-125	-		20
Copper, Total	0.002J	0.25	0.263	105		-	-		75-125	-		20
Iron, Total	0.604	1	1.61	101		-	-		75-125	-		20
Lead, Total	ND	0.53	0.510	96		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.476	95		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.133	111		-	-		75-125	-		20
Silver, Total	ND	0.05	0.054	108		-	-		75-125	-		20
Zinc, Total	0.004J	0.5	0.502	100		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1595062-7 QC Sample: L2202404-02 Client ID: MS Sample									
Arsenic, Total	ND	0.12	0.132	110	-	-	75-125	-	20
Barium, Total	0.069	2	2.16	104	-	-	75-125	-	20
Cadmium, Total	ND	0.053	0.053	99	-	-	75-125	-	20
Chromium, Total	ND	0.2	0.200	100	-	-	75-125	-	20
Copper, Total	0.004J	0.25	0.261	104	-	-	75-125	-	20
Iron, Total	0.020J	1	1.02	102	-	-	75-125	-	20
Lead, Total	ND	0.53	0.504	95	-	-	75-125	-	20
Nickel, Total	0.003J	0.5	0.473	95	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.131	109	-	-	75-125	-	20
Silver, Total	ND	0.05	0.053	105	-	-	75-125	-	20
Zinc, Total	0.023J	0.5	0.518	104	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1594802-4 QC Sample: L2202574-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1594802-6 QC Sample: L2202575-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1595062-4 QC Sample: L2202404-01 Client ID: DUP Sample						
Iron, Total	0.604	0.602	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1595062-8 QC Sample: L2202404-02 Client ID: DUP Sample						
Iron, Total	0.020J	0.016J	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001
Lab Number: L2202097
Report Date: 01/27/22

SAMPLE RESULTS

Lab ID: L2202097-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water
Date Collected: 01/13/22 09:40
Date Received: 01/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/17/22 05:00	01/17/22 10:39	121,4500CN-CE	CS
pH (H)	7.6		SU	-	NA	1	-	01/14/22 20:51	121,4500H+-B	AS

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001
Lab Number: L2202097
Report Date: 01/27/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1594598-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/17/22 05:00	01/17/22 10:29	121,4500CN-CE	CS

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE

Project Number: B0345-025-001

Lab Number: L2202097

Report Date: 01/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1594235-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1594598-2								
Cyanide, Total	99		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1594598-4 QC Sample: L2202404-02 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.173	**86**	Q	-	-		90-110	-		30

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1594235-2 QC Sample: L2201580-01 Client ID: DUP Sample						
pH	6.3	6.3	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1594598-3 QC Sample: L2202404-01 Client ID: DUP Sample						
Cyanide, Total	0.730	0.801	mg/l	9		30

Project Name: 2424 HAMBURG TURNPIKE
Project Number: B0345-025-001

Lab Number: L2202097
Report Date: 01/27/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2202097-01A	Vial Na2S2O3 preserved	A	NA		2.4	Y	Absent		624.1(3)
L2202097-01B	Vial Na2S2O3 preserved	A	NA		2.4	Y	Absent		624.1(3)
L2202097-01C	Vial Na2S2O3 preserved	A	NA		2.4	Y	Absent		624.1(3)
L2202097-01D	Plastic 120ml unpreserved	A	7	7	2.4	Y	Absent		PH-4500(.01)
L2202097-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.4	Y	Absent		BA-UI(180),NI-UI(180),AG-UI(180),ZN-UI(180),FE-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),PB-UI(180),CU-UI(180),AS-UI(180)
L2202097-01F	Plastic 250ml NaOH preserved	A	>12	>12	2.4	Y	Absent		TCN-4500(14)
L2202097-01G	Amber 1000ml H2SO4 preserved	A	<2	<2	2.4	Y	Absent		SUB-PHENOL()

*Values in parentheses indicate holding time in days

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

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:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

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.

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	2424 HAMBURG TURNPIKE	**Lab Number:**	L2202097
Project Number:	B0345-025-001	**Report Date:**	01/27/22

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: 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, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 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, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **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

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

NEW YORK CHAIN OF CUSTODY

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Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 1/14/22

ALPHA Job #: L2202097

Client Information
Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com

Project Information
Project Name: 2424 Hamburg Turnpike
Project Location: Buffalo, NY
Project #: B0345-025-001
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☑

Other project specific requirements/comments:
Email results to: *Metals: Ag, As, Ba, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, Zn

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☑ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Phenol	T. CN	624.1	T. Metals*	pH				Sample Specific Comments	Total Bottle
02097-01	Effluent	1-13-22	940	Water	BMG	X	X	X	X	X					7

Container Type: A P V P P
Preservative: D E H C A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Brock Greene	1-13-22/950	AAR	1-13-22 1300
AAR	1-13-22 1400		1/14/22 0100

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

PHOENIX
Environmental Laboratories, Inc.

Monday, January 17, 2022

Attn: Candace Fox
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Project ID: L2202097
SDG ID: GCK16259
Sample ID#s: CK16259

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

January 17, 2022

SDG I.D.: GCK16259

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.
Compounds that are detected above MDL but below RL are qualified with a J flag.

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Sample Id Cross Reference

January 17, 2022

SDG I.D.: GCK16259

Project ID: L2202097

Client Id	Lab Id	Matrix
EFFLUENT	CK16259	WATER

PHOENIX
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

January 17, 2022

FOR: Attn: Candace Fox
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		01/13/22	9:40
Location Code:	ALPHA	Received by:	LB	01/14/22	11:15
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCK16259
Phoenix ID: CK16259

Project ID: L2202097
Client ID: EFFLUENT

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Phenolics	0.006	J	0.015	0.005	mg/L	1	01/17/22	MSF	E420.4

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 17, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

Ver 1

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

January 17, 2022

QA/QC Data

SDG I.D.: GCK16259

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 608427 (mg/L), QC Sample No: CK16260 (CK16259)													
Phenolics	BRL	0.015	0.010 J	0.011 J	NC	101			99.0			90 - 110	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
January 17, 2022

Monday, January 17, 2022

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCK16259 - ALPHA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

January 17, 2022

SDG I.D.: GCK16259

The samples in this delivery group were received at 1.0°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

WCice 1.0

Subcontract Chain of Custody

Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040

Alpha Job Number
L2202097

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 716-427-5223 Email: cfox@alphalab.com	Project Location: NY Project Manager: Candace Fox **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2202097

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com REPORT to MDL

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
16259	EFFLUENT	01-13-22 09:40	WATER	Phenol	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	[illegible] 1/14/22		[illegible] DAUS	1-14-22 8:30
	[illegible] DAUS ADA	1-14-22 1051	[illegible]	1/14 1115
Form No: AL_subcoc				

APPENDIX E

CARBON RECYCLING DOCUMENTATION

CARBON ACTIVATED CORP.

3774 Hoover Rd Blasdell NY 14219
Phone (716) 821 7830
Fax (716) 821 0790
Email: carbonactivated@earthlink.net

CERTIFICATE OF REACTIVATION

Customer : Benchmark Turnkey
Site: 2424 Hamburg Turnpike

Date	Pick Up Location	Grade	Quantity Approx.	Approval Code
6/16/2021	CAC - NY	Liquid	500 lb. Vessel	SPA-PL-20-010

Carbon Activated Corporation certifies that the shipments above were received into to our Blasdell NY reactivation facility and the carbon has been added to our pool and will be processed through our reactivation plant which operates under New York State Department of Environmental Conservation Permit No. 9-1448-00042/00022.

Regards

Christopher Allen
Director – Carbon Activated Corp.

APPENDIX F

GROUNDWATER MONITORING LOGS

BENCHMARK

GROUNDWATER FIELD FORM

Project Name: 2424 Hamburg Turnpike | Date: 11/16/2021

Location: Lackawanna, NY | Project No.: B0345-021-001 | Field Team: TJM

Well No.	MW-2	Diameter (inches 2"		Sample Date / Time:	11/16/2021 @ 1434
Product Depth (fbTOR):		Water Column (ft):	12.16	DTW when sampled:	
DTW (static) (fbTOR):	3.71	One Well Volume (gal):	~~1.96~~ 2.05	Purpose: ☐ Development ☐ Sample ☑ Purge & Sample	
Total Depth (fbTOR):	16.32	Total Volume Purged (gal):	5086	Purge Method:	Low flow / Bailer

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1345	0	Initial	0	7.01	14.8	1557	248	0.54	-111	little turbid
1348	1	8	1	7.02	14.3	1538	69.3	0.89	-87	clear
1354	2	9.7	2.5	7.03	15.4	1608	55.6	1.01	-88	
1356	3	9.5	3.25	7.01	16.2	1707	34.3	1.07	-88	
1359	4	10.45	4.50	7.02	15.7	1745	51.7	0.97	-78	a little more turbid
1427	5	10.70	7	7.11	15.4	1432	OR	1.66	-81	
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1434	S1	11.64	9	7.10	15.7	1509	OR	2.24	-86	
1436	S2	11.30	9.5	7.15	15.2	1400	OR		-89	

Bailer

Well No.	MW-3	Diameter (inches 2"		Sample Date / Time:	11/16/2021 @ 1311
Product Depth (fbTOR):		Water Column (ft):	11.7	DTW when sampled:	
DTW (static) (fbTOR):	2.43	One Well Volume (gal):	1.907	Purpose: ☐ Development ☐ Sample ☑ Purge & Sample	
Total Depth (fbTOR):	14.13	Total Volume Purged (gal):	5.7	Purge Method:	Low flow

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1252	0	Initial	0	7.67	13.8	550.4	OR	1.61	-94	Turbid
1256	1	2.47	0.75	7.30	15.5	541.6	668	0.95	-109	less turbid
1258	2	2.56	1.5	7.40	15.4	536	244	0.68	-120	less turbid
1301	3	2.60	2.50	7.45	16.1	521.3	78.7	0.87	-129	slightly turbid
1304	4	2.65	3.5	7.49	16.3	518.6	50.9	0.81	-135	
1306	5	2.66	4.25	7.52	16.0	519.0	43.2	0.81	-140	
1309	6	2.67	5	7.58	16.0	512.4	31	0.75	-140	clear
	7									
	8									
	9									
	10									
Sample Information:										
1311	S1	2.67	5.50	7.62	15.4	510.8	29.8	0.75	-140	clear
1311	S2	2.56	5.75	7.60	15.9	511.8	46.4	0.98	-136	clear

REMARKS: MW-2 stopped pumping so had to use a bailer to collect sample.

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TJM

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: **2424 Hamburg Turnpike**

Date: 11/16/2021

Project No.: B0345-021-001

Client: 2424 Hamburg Turnpike, LLC

Instrument Source: [X] BM [ ] Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
[X] pH meter	units	8:45	Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6243003 [X] 6223973 [ ]	TJM	4.00 7.00 10.01	4.01 7.02 10.00	
[X] Turbidity meter	NTU	9:00	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) [ ] 13120C030432 (Q) [ ] 17110C062619 (Q) [X]	TJM	10 NTU verification < 0.4 20 100 800	10.6 21 101 828	
[ ] Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6243003 [ ] 6223973 [ ]		_____ mS @ 25 °C		
[ ] PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
[X] Dissolved Oxygen	ppm	8:45	HACH Model HQ30d	080700023281 [ ] 100500041867 [ ] 140200100319 [X]	TJM	100% Satuartion	100%	17.3 °C 9.51 MG/L Slope = 95.4% offset = 0.00 mg/L
[ ] Particulate meter	mg/m^3					zero air		
[ ] Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: TJM **DATE:** 11/16/2021