

FORM F
INTRUSIVE ACTIVITY AND WASTE MANAGEMENT DOCUMENTATION FOR
fYNOP ANNUAL POST-REMEDIATION CARE PLAN ACTIVITIES

This form is used to document the results of annual post-remediation care activities for engineering and institutional controls at the Former York Naval Ordnance Plant (fYNOP) in York, Pennsylvania. These activities are to be performed in accordance with the procedures in the approved Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2) Final Report and Post-Remediation Care Plan (PRCP) contained in Appendix J of the Final Report.

The activities covered by this form include documenting intrusive activities and managing waste generated during intrusive activities on the East and West Campus properties in accordance with Section 4.2 in the PRCP. Intrusive activities are defined in the PRCP as earthwork, including, without limitation, any digging, excavating, drilling, grading, pile driving, and/or removal of any asphalt, concrete, soil, or removal or displacement of ground cover.

This form is a companion to the completed Form A – Monitoring and Maintenance of Cap Areas for fYNOP Annual PRCP Activities which must be reviewed prior to completion of this intrusive activity and waste management form.

Date of review of completed Cap Area Form : 1/28/2025

Which property does this form cover?

- East Campus property.
 West Campus property.

Intrusive Activities and Material Handling

Describe the procedure(s) used to authorize and document intrusive activities and manage waste generated during intrusive activities over the past year.

The owner follows a site-specific Soil Management Plan for management of intrusive maintenance work in accordance with the PCRP and has a contract with Hydro-Terra Group to provide Qualified Environmental Professional (QEP) services to monitor, screen and sample soil during intrusive activities. Although there was some minor asphalt repair work done, there was only one intrusive project completed during 2024. Eight (8) fence postholes were installed on June 12 by Long Fence Co. to construct vehicle access gates at four entry/exit areas to control the flow of traffic into the West Parking Lot and south plant entrances. All intrusive work was monitored by a QEP, and one soil sample was collected from the posthole work. The soil sample demonstrated that the soil meets PADEP clean fill standards, and the excess spoils (approximately 1 cubic yard) were retained on-site.

Are you aware of intrusive activities on the property that were not performed in accordance with the PRCP to prevent exposure to contaminated soil/fill material, water, and ordnance hazards?

- No.
 Yes. If yes, describe the intrusive activity(s).

Are you aware of waste(s) generated during intrusive activities on the property that was not managed in accordance with the PRCP?

- No.
 Yes. If yes, describe how the waste(s) was managed.

Please include copies of documentation for PRCP intrusive and waste management activity(s) with this completed form.

Intrusive Activity and Waste Management Form Prepared By:

Hydro-Terra Group
Company Name

Rodney Myers, CHMM - Sr. Program Manager
Company Representative / Title


4/3/2025
Signature / Date

Consultant- fYNOP Team Member
Relationship to Owner of the Property

14 July 2024

Ms. Chantelle Jackson-Gaines
NorthPoint Development
3315 N. Oak Trafficway
Kansas City, MO 64116



Re: Clean Fill Evaluation - Gate Post Installation
NorthPoint Development, NP York 58
1445 Eden Road, York PA

Dear Ms. Jackson-Gaines:

Hydro-Terra Group (HTG) was contracted by NP York 58, LLC (NP York) to provide clean fill determination for excavated soil for the installation of gate posts at the Eden Road Logistics Center (ERLC) facility located in York, Pennsylvania (**Figure 1**). An environmental soil assessment was requested to monitor the intrusive activities and confirm how excess soil could be handled following excavations for gate post installation. The following report provides the results of the soil monitoring, sampling and guidance for excess soil handling.

The ERLC is located on the western portion of the former York Naval Ordnance Plant (fYNOP). The soil sampling was completed in accordance with an existing Soil Management Plan, and the approved Pennsylvania Land Recycling and Environmental Standards Act (a.k.a., Act 2) Final Report for fYNOP, including its Post Remediation Care Plan (PRCP). The PRCP sets forth guidelines for monitoring and maintaining the designated engineering and institutional controls for fYNOP soil – including soil handling and disposal. The Act 2 Final Report and PRCP were submitted to the Pennsylvania Department of Environmental Protection (PADEP) and the United States Environmental Protection Agency (USEPA) on November 3, 2023. The PADEP issued a letter approving the Act 2 Final report and PRCP on January 31, 2024.

Gate posts were installed at eight locations (four gates total) on the NP York 58 property. The locations are at the northern entrance of the trailer parking area, the northern entrance on the west side of the trailer parking area, and two locations south of the warehouse (see **Figure 2**). The construction consisted of installing 4-inch diameter steel posts approximately 4 feet into the ground, surrounded by concrete, with removed soil to be stockpiled on-site. Although two of the locations were within an established ordnance hazard boundary, the locations and maximum depth of the posts are within the elevated roadway of Eden Road, and above the former landfill hazard elevation, so no ordnance hazard specialists were needed.

The Pennsylvania Department of Environmental Protection (PADEP) Management of Fill Policy (Document No. 258-2182-773, January 16, 2021) provides procedures and numerical standards for sampling material to determine whether it can be classified as “clean fill”. According to this guidance, clean fill includes soil, rock, stone, gravel, used asphalt, brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such, and is defined as uncontaminated, nonwater-soluble, nondecomposable, inert solid material used to level an area or bring an area to grade.

Soil Monitoring and Sampling Summary

The required environmental services were conducted by an experienced HTG team who has been performing environmental services at this site for many years and are Occupational Safety and Health Administration (OSHA), hazardous waste operations and emergency response (HAZWOPER) trained in accordance with 29CFR 1910.120. The HTG scope of work (SOW) was completed to ensure worker safety during construction and determine the appropriate handling. A site-specific Health and Safety Plan (HASP) was prepared for the anticipated activities. HTG conducted activities in accordance with the HASP.

Prior to beginning field work, HTG reviewed available historical information to identify subsurface utilities and contaminants that may be present. NP York's contractor completed the excavation work by hand, using shovels, digging bars, and post hole diggers, while HTG monitored the soil conditions. A total of approximately one (1) cubic yard (CY) of excess soil was generated during installation of the gate posts as follows:

- Eight (8) post hole locations were excavated to a depth of 40 inches and approximately 18 inches in diameter in preparation to install four (4) gates across property accessways (**Figure 2**).
- All excavated soil was scanned with a photoionization detector (PID) used to detect volatile organic compounds, visually inspected for staining or discoloration, and odors. No elevated PID readings, staining, or odors were noted at any of the locations.
- The excess soil from all the excavations was stockpiled on and beneath plastic sheeting on the northern end of the trailer parking area.

HTG collected one representative soil sample from the stockpile on June 12, 2024 for environmental testing in accordance with the PADEP Management of Fill guidance. The sample was packed on ice in a cooler and shipped to Eurofins Lancaster Laboratories Environmental, LLC (ELLE), Leola, PA. Based on the known history of operations on-site, the following constituents of concern were tested:

- Total VOCs by U.S. Environmental Protection Agency (EPA) method 8260.
- Total SVOCs by EPA method 8270 and 8270 SIM.
- Total Priority Pollutant metals by EPA method 6010 and 7471 (for mercury)
- Polychlorinated Biphenyls (PCBs) by EPA method 8082.

Analytical Results

The final laboratory report is attached with the results of the soil testing (ELLE Lab Report J175875, **Appendix A**). **Table 1** (attached) provides a summary of the tested compounds, with comparison to their respective PADEP Clean Fill Concentration Limits (CFCLs) and Regulated Fill Concentration Limits (RFCLs). Although there were some laboratory data qualifiers included with the reported results, there were no significant quality assurance/quality control issues with the sampling, sample delivery, or analyses, and thus the data set is considered usable for interpretation.

According to the Management of Fill Policy, CFCL is defined as the concentrations of regulated substances that do not exceed the numeric values specified in Table 3 [Medium- Specific Concentrations (MSCs) for Organic Regulated Substances in Soil] and Table 4 [Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil] of Appendix A in 25 Pa. Code Chapter 250 (relating to administration of land recycling program). The applicable CFCL numeric limit is determined by comparison of the Generic Soil to Groundwater Value (numeric values based on generic leaching modeling for soils at residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L) with the Direct Contact numeric value for soils at residential properties, and selection of the lower of the two values. RFCLs are defined similarly, with exception that the applicable numeric limit is determined by comparison of the Generic Soil to Groundwater Value for soils at non-residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L, with the Direct Contact Non-Residential Value for soils at non-residential properties; and selection of the lower of those two values.

Below is a summary of the soil analytical testing results (refer to **Table 1** for details).

Metals: Inorganic metal compounds arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc were detected in the soil sample. Antimony, selenium, silver and thallium were not detected in any of the samples. The detected metals naturally occur in soil. All of the detected metal sample results were significantly lower than their respective CFCL or RFCLs.

VOCs: Only acetone and methyl ethyl ketone (2-Butanone) were detected. These compounds are not known to be present on-site and are also common laboratory contaminants. The two detections were well below their respective CFCL or RFCLs.

SVOCs: The soil sample contained low detectable levels of polycyclic aromatic hydrocarbon (PAH) compounds. PAHs are a class of SVOC chemicals that occur naturally in coal, crude oil, and gasoline, and are associated with asphalt. Only three SVOCs were detected in the soil sample: 2-methylnaphthalene, Dibenzo[a,h]anthracene, and Dibenzofuran. All detected concentrations were below the CFCL and RFCLs.

PCBs: Aroclor-1254 and Aroclor-1260 were the only two PCB compounds detected in the soil sample. Both compounds are significantly below the CFCL or RFCLs.

According to the Management of Fill Policy, evaluation of data for discrete samples is conducted as follows:

- For a grab sample collected for VOC analysis in accordance with the above sections, the measured numeric value for a parameter may not exceed the CFCL for that parameter for the fill to be managed as clean fill, or the RFCL for that parameter for the fill to be managed as regulated fill.
- For discrete non-VOC samples, the measured numeric values for a substance in 75% of the discrete samples may not exceed the CFCL for that parameter for the fill to be managed as clean fill, or the RFCL for that parameter for the fill to be managed as regulated fill. For persons

using the discrete sampling method, no single sample may show regulated substances at a concentration that is more than twice the CFCL or RFCL, whichever is applicable, for any parameter.

Conclusions

Based on the analytical results and comparisons to the CFCL and RFCL numerical standards, the sampling and testing results demonstrate the soil meets the numerical standards identified by PADEP for Clean Fill. Additionally, the intrusive work conducted during this installation did not breach any infiltration reduction cap areas or eliminate any direct contact permanent caps required on the West Campus.

Recommendations

In general, soil material that is demonstrated to be clean fill can be used on-site in an unrestricted manner, provided it is not placed in waters of the Commonwealth; it is used in compliance with 25 Pa. Code, Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management); and it is managed in accordance with 25 Pa. Code § 271.101(b)(3) and § 287.101(b)(6). However, in accordance with the PADEP Management of Fill guidance, if this material is taken off-site, and is not being placed at a licensed waste facility, a PADEP Form FP-001, Certification of Clean Fill, should be prepared and submitted to PADEP, and copies should be retained by the donor (NP York) and receiving site(s) for 5 years.

Please contact us if you have further questions regarding this report.

Respectfully submitted,
HYDRO-TERRA GROUP



Emily Wade
Sr. Geologist/Project Manager

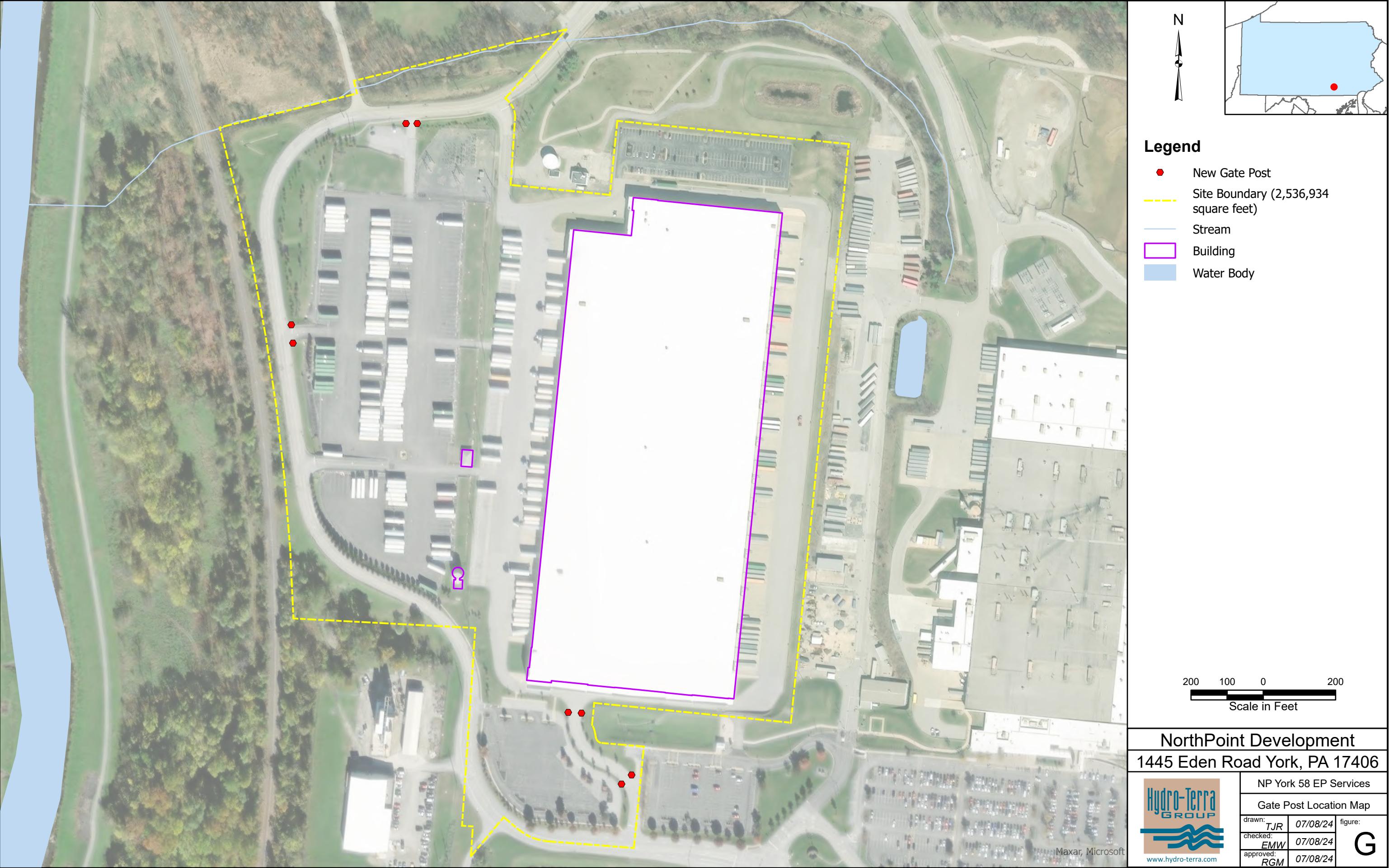


Rodney G. Myers, CHMM,
Sr. Program Manager

cc: Eric Ricci (NP York)

Figures





Table

Table 1
Clean Fill Criteria Soil Summary
Gate Post Installation Soil Sampling

REGULATED SUBSTANCE	CASRN	NP York 58, LLC, York PA			Results	Q
		Clean Fill	Regulated Fill	Limit*		
Metals/Inorganic Compounds						
ANTIMONY	7440-36-0	27	27	1.6	U	
ARSENIC	7440-38-2	12	29	7.2		
BERYLLIUM	7440-41-7	320	320	0.76		
CADMIUM	7440-43-9	38	38	0.34	J	
CHROMIUM (III)	16065-83-1	190000	190000	22		
COPPER	7440-50-8	7200	43000	25		
LEAD	7439-92-1	450	450	25		
MERCURY	7439-97-6	10	10	0.054	J	
NICKEL	7440-02-0	650	650	15		
SELENIUM	7782-49-2	26	26	1.4	U	
SILVER	7440-22-4	84	84	0.38	U	
THALLIUM	7440-28-0	2.2	14	6.1	U	
ZINC	7440-66-6	12000	12000	74		
Volatile Organic Compounds (VOCs)						
TRICHLOROETHANE, 1,1,1-	71-55-6	7.2	7.2	0.00062	U	
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.026	0.13	0.00062	^c	
TRICHLOROETHANE, 1,1,2-	79-00-5	0.15	0.15	0.00054	^c	
DICHLOROETHANE, 1,1-	75-34-3	0.75	3.9	0.00062	U	
DICHLOROETHYLENE, 1,1-	75-35-4	0.19	0.19	0.00062	U	
TRICHLOROBENZENE, 1,2,4-	120-82-1	27	27	0.0039	U	
1,2,4-Trimethylbenzene	95-63-6	73	300	0.0039	U	
DIBROMO-3-CHLOROPROpane, 1,2-	96-12-8	0.0092	0.0092	0.00062	U	
DIBROMOETHANE, 1,2- [ETHYLENE DIBROMIDE]	106-93-4	0.0012	0.0012	0.00054	U	
DICHLOROBENZENE, 1,2-	95-50-1	59	59	0.0007	U	
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	0.00046	U	
DICHLOROPROPANE, 1,2-	78-87-5	0.11	0.11	0.00062	U	
1,3,5-Trimethylbenzene	108-67-8	23	93	0.0039	U	
DICHLOROBENZENE, 1,3-	541-73-1	61	61	0.00077	U	
DICHLOROBENZENE, 1,4- [P-]	106-46-7	10	10	0.0007	U	
METHYL ETHYL KETONE [2-BUTANONE]	78-93-3	76	76	0.0027	J	
METHYL N-BUTYL KETONE [2-HEXANONE]	591-78-6	1.6	6.4	0.0019	U	
METHYL ISOBUTYL KETONE (MIBK) [4-METHYL-2-PENTANONE]	108-10-1	43	120	0.0015	U	
ACETONE	67-64-1	350	430	0.044		
BENZENE	71-43-2	0.13	0.13	0.00062	U	
BROMODICHLOROMETHANE [DICHLOROBROMOMETHANE]	75-27-4	2.7	2.7	0.00054	U	
TRIBROMOMETHANE [BROMOFORM]	75-25-2	3.5	3.5	0.0039	U	
BROMOMETHANE	74-83-9	0.54	0.54	0.00077	U	
CARBON DISULFIDE	75-15-0	130	130	0.00062	U	
CARBON TETRACHLORIDE	56-23-5	0.26	0.26	0.00062	U	
CHLOROBENZENE	108-90-7	6.1	6.1	0.0007	U	
CHLOROETHANE	75-00-3	450	5.4	0.00077	U	
CHLOROFORM	67-66-3	2	2	0.00062	U	
CHLOROMETHANE	74-87-3	0.38	0.38	0.00077	U	
DICHLOROETHYLENE, CIS-1,2-	156-59-2	1.6	1.6	0.00062	U	
DICHLOROPROPENE, CIS-1,3-	10061-01-5	0.12	0.13	0.00046	U	
CYCLOHEXANE	110-82-7	17000	17000	0.0007	U	
CHLORODIBROMOMETHANE	124-48-1	2.5	2.5	0.0039	U	
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	100	100	0.00077	U	
ETHYL BENZENE	100-41-4	46	46	0.00077	U	
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- (Freon 113)	76-13-1	3400	10000	0.0007	U	
CUMENE [ISOPROPYL BENZENE]	98-82-8	600	600	0.0039	U	
METHYL ACETATE	79-20-9	650	2200	0.00077	^c	
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.28	0.28	0.00062	U	
METHYLCYCLOHEXANE	108-87-2	NA	NA	0.00062	U	
DICHLOROMETHANE [METHYLENE CHLORIDE]	75-09-2	0.076	0.076	0.0015	U	
NAPHTHALENE	91-20-3	25	25	0.0039	U	
STYRENE	100-42-5	24	24	0.0007	U	
TETRACHLOROETHYLENE (PCE)	127-18-4	0.43	0.43	0.0012	U	
TOLUENE	108-88-3	44	44	0.00077	U	
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	2.3	2.3	0.00062	U	
DICHLOROPROPENE, TRANS-1,3-	10061-02-6	0.12	0.13	0.0039	U	
TRICHLOROETHYLENE (TCE)	79-01-6	0.17	0.17	0.00062	U	
TRICHLOROFUOROMETHANE [FLUOROTRICHLOROMETHANE]	75-69-4	87	87	0.00077	U	
VINYL CHLORIDE	75-01-4	0.027	0.027	0.00062	U	
XYLENES (TOTAL)	1330-20-7	990	990	0.00054	U	

Table 1
Clean Fill Criteria Soil Summary
Gate Post Installation Soil Sampling

REGULATED SUBSTANCE	CASRN	Clean Fill	Regulated Fill	Results	Q
		Limit*	Limit	Gate Posts	
Semi-Volatile Organic Compounds (SVOCs)					
ACENAPHTHENE	83-32-9	2600	4700	0.0089	J
ACENAPHTHYLENE	208-96-8	2400	8000	0.02	
ANTHRACENE	120-12-7	350	350	0.03	
BENZO[A]ANTHRACENE	56-55-3	6.1	130	0.18	
BENZO[A]PYRENE	50-32-8	4.2	12	0.220	
BENZO[B]FLUORANTHENE	205-99-2	3.5	76	0.33	
BENZO[GHI]PERYLENE	191-24-2	180	180	0.18	
BENZO[K]FLUORANTHENE	207-08-9	3.5	76	0.11	
CHRYSENE	218-01-9	35	230	0.22	
DIBENZO[A,H]ANTHRACENE	53-70-3	1	22	0.041	
FLUORANTHENE	206-44-0	3200	3200	0.34	
FLUORENE	86-73-7	2800	3800	0.0083	
INDENO[1,2,3-CD]PYRENE	193-39-5	3.5	76	0.19	
NAPHTHALENE	91-20-3	25	25	0.0082	
PHENANTHRENE	85-01-8	10000	10000	0.150	
PYRENE	129-00-0	2200	2200	0.33	
TOTAL Polycyclic Aromatic Hydrocarbons [PAHs] (Sum of 16 Cmps)					
BIPHENYL, 1,1-	92-52-4	0.37	190	0.018	U
BIS(2-CHLORO-ISOPROPYL)ETHER (2,2'-oxybis[1-chloropropane])	108-60-1	8	8	0.051	U
TRICHLOROPHENOL, 2,4,5-	95-95-4	2100	3200	0.018	U
TRICHLOROPHENOL, 2,4,6-	88-06-2	10	34	0.018	U
DICHLOROPHENOL, 2,4-	120-83-2	1	1	0.022	U
DIMETHYLPHENOL, 2,4-	105-67-9	30	100	0.018	U
DINITROPHENOL, 2,4-	51-28-5	0.78	2.6	0.18	U
DINITROTOLUENE, 2,4-	121-14-2	0.05	0.26	0.018	U
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.013	0.068	0.043	U
CHLORONAPHTHALENE, 2-	91-58-7	6000	17000	0.015	U
CHLOROPHENOL, 2-	95-57-8	4.4	4.4	0.018	U
METHYLNAPHTHALENE, 2-	91-57-6	25	1900	0.0083	J
CRESOL, O- [2-METHYLPHENOL]	95-48-7	28	96	0.022	U
NITROANILINE, O- [2-]	88-74-4	0.002	21	0.018	U
NITROPHENOL, 2-	88-75-5	5.7	19	0.022	U
DICHLOROBENZIDINE, 3,3-	91-94-1	7.7	42	0.037	U
CRESOL, P- [3 & 4 METHYLPHENOL]	106-44-5	4	14	0.018	U
NITROANILINE, M- [3-]	99-09-2	NA	0.033	0.037	U
CRESOL, 4,6-DINITRO-O-	534-52-1	0.21	0.7	0.18	U
BROMOPHENYL PHENYL ETHER, 4-	101-55-3	NA	NA	0.018	U
CRESOL, P-CHLORO-M- [4-CHLORO-3-METHYLPHENOL]	59-50-7	720	2500	0.022	U
CHLOROANILINE, P- [4-]	106-47-8	0.42	2.1	0.037	U
CHLOROPHENOL PHENYL ETHER, 4-	7005-72-3	NA	NA	0.018	U
NITROANILINE, P- [4-]	100-01-6	0.49	2.5	0.037	U
NITROPHENOL, 4-	100-02-7	4.1	4.1	0.18	U
Acetophenone	98-86-2	190	520	0.018	U
ATRAZINE	1912-24-9	0.13	0.13	0.074	U
BENZALDEHYDE	100-52-7	NA	NA	0.037	U
BIS(2-CHLOROETHOXY)METHANE	111-91-1	2.6	9.2	0.018	U
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.0045	0.023	0.022	U
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	130	130	0.037	U
BUTYLBENZYL PHTHALATE	85-68-7	2900	10000	0.037	U
CAPROLACTAM	105-60-2	NA	NA	0.037	U
CARBAZOLE	86-74-8	21	110	0.018	U
DIBENZO[A,H]ANTHRACENE	53-70-3	1	22	0.041	
DIBENZOFURAN	132-64-9	90	310	0.005	
DIETHYL PHTHALATE	84-66-2	880	2900	0.037	U
DIMETHYL PHTHALATE	131-11-3	NA	NA	0.037	U
DIBUTYL PHTHALATE, N-	84-74-2	1400	4900	0.037	U
OCTYL PHTHALATE, DI-N- (Di-n-octyl phthalate)	117-84-0	2200	10000	0.037	U
HEXACHLOROBENZENE	118-74-1	0.96	0.96	0.0074	U
HEXACHLOROBUTADIENE	87-68-3	10	52	0.037	U
HEXACHLOROCYCLOPENTADIENE	77-47-4	91	91	0.18	^c
HEXACHLOROETHANE	67-72-1	0.56	0.56	0.037	U
ISOPHORONE	78-59-1	1.9	1.9	0.018	U
NITROBENZENE	98-95-3	0.052	10	0.018	U
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.00035	0.0068	0.037	U
NITROSODIPHENYLAMINE, N-	86-30-6	3	110	0.018	U
PENTACHLOROPHENOL	87-86-5	5	5	0.074	U
PHENOL	108-95-2	33	33	0.018	U

Table 1
Clean Fill Criteria Soil Summary
Gate Post Installation Soil Sampling

REGULATED SUBSTANCE	CASRN	NP York 58, LLC, York PA		Results	Q
		Limit*	Limit		
Polychlorinated Biphenyls (PCBs)					
Aroclor-1016	12674-11-2	15	190	0.0059	U
Aroclor-1221	11104-28-2	0.16	0.68	0.0059	U
Aroclor-1232	11141-16-5	0.13	0.54	0.0059	U
Aroclor-1242	53469-21-9	4	17	0.0059	U
Aroclor-1248	12672-29-6	9.3	46	0.0059	U
Aroclor-1254	11097-69-1	4.4	64	0.069	
Aroclor-1260	11096-82-5	9.3	46	0.041	
Total PCBs (sum of detected Arochlors)		50	50	0.11	

All concentrations in mg/kg

CASRN - Chemical Abstracts Service Registry Number: a unique numerical identifier assigned to every chemical substance

Q - Analytical Result Qualifier: No qualifier = Detected at Results concentration

U - Undetected at the corresponding reporting level

J - Estimated concentration

[^]c - Continuing Calibration Value (CCV) Recovery is outside acceptance limits

NA - Not available

Detected compounds are shown in **bold**.

Detected values exceeding the Clean Fill Limit are shown in yellow highlight.

Detected values exceeding the Clean Fill AND Regulated Fill Limits are shown in orange highlight.

*From 25 Pa. Code Chapter 250, Appendix A, Tables 3 (organic) and 4 (inorganics)

- MSCs for Regulated Substances in Soil (last updated November 20, 2021)

Appendix A

Laboratory Analytical Results

ANALYTICAL REPORT

PREPARED FOR

Attn: Emily Wade
Hydro-Terra Group
7420 Derry Street
Harrisburg, Pennsylvania 17111

Generated 6/30/2024 3:16:43 PM

JOB DESCRIPTION

NP York Stormwater

JOB NUMBER

410-175875-1

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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6/30/2024 3:16:43 PM

Authorized for release by
Barbara Weyandt, Project Manager
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Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Definitions/Glossary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^C	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.
^C	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
^C	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Definitions/Glossary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Case Narrative

Client: Hydro-Terra Group
Project: NP York Stormwater

Job ID: 410-175875-1

Job ID: 410-175875-1

Eurofins Lancaster Laboratories Environment

Job Narrative 410-175875-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 6/13/2024 11:43 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-520996 recovered above the upper control limit for 1,1,2-Trichloroethane and 1,1,2,2-Tetrachloroethane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-520996 recovered outside acceptance criteria, low biased, for Methyl acetate. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270E: The initial calibration verification (ICV) result for batch 410-521564 was above the upper control limit for Hexachlorocyclopentadiene. Sample results were non-detects, and have been reported as qualified data.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 410-521936 recovered above the upper control limit for Bis(2-ethylhexyl) phthalate and Butylbenzylphthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_SIM: The initial calibration verification (ICV) result for batch 410-521936 was above the upper control limit. The affected analyte is: N-Nitrosodiphenylamine. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-520567 recovered above the upper control limit for Tetrachloro-m-xylene on one column. Result is reported from the passing column: Gate Posts (410-175875-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Client Sample ID: Gate Posts

Lab Sample ID: 410-175875-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	44		15	4.6	ug/Kg	1	⊗	8260D	Total/NA
2-Butanone	2.7	J	7.7	1.5	ug/Kg	1	⊗	8260D	Total/NA
2-Methylnaphthalene	9.2	J cn	18	7.4	ug/Kg	5	⊗	8270E SIM	Total/NA
Acenaphthene	8.9	J cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Acenaphthylene	20	cn	9.2	1.8	ug/Kg	5	⊗	8270E SIM	Total/NA
Anthracene	30	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Benzo[a]anthracene	180	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Benzo[a]pyrene	220	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Benzo[b]fluoranthene	330	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Benzo[g,h,i]perylene	180	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Benzo[k]fluoranthene	110	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Chrysene	220	cn	9.2	1.8	ug/Kg	5	⊗	8270E SIM	Total/NA
Dibenz(a,h)anthracene	41	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Dibenzofuran	5.0	J ! cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Fluoranthene	340	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Fluorene	8.3	J cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	190	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
Naphthalene	8.2	J cn	18	7.4	ug/Kg	5	⊗	8270E SIM	Total/NA
Phenanthrene	150	cn	13	5.5	ug/Kg	5	⊗	8270E SIM	Total/NA
Pyrene	330	cn	9.2	3.7	ug/Kg	5	⊗	8270E SIM	Total/NA
2-Methylnaphthalene	8.3	J	18	5.5	ug/Kg	1	⊗	8270E	Total/NA
Acenaphthene	8.4	J	18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Acenaphthylene	23		18	4.4	ug/Kg	1	⊗	8270E	Total/NA
Anthracene	30		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Benzo[a]anthracene	140		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Benzo[a]pyrene	170		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Benzo[b]fluoranthene	250		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Benzo[g,h,i]perylene	160		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Benzo[k]fluoranthene	78		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Chrysene	180		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Dibenz(a,h)anthracene	38		18	7.4	ug/Kg	1	⊗	8270E	Total/NA
Fluoranthene	290		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Fluorene	9.0	J	18	3.7	ug/Kg	1	⊗	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	130		18	4.4	ug/Kg	1	⊗	8270E	Total/NA
Phenanthrene	120		18	4.4	ug/Kg	1	⊗	8270E	Total/NA
Pyrene	250		18	3.7	ug/Kg	1	⊗	8270E	Total/NA
PCB-1254 (1C)	69		19	7.1	ug/Kg	1	⊗	8082A	Total/NA
PCB-1260 (1C)	41		19	7.1	ug/Kg	1	⊗	8082A	Total/NA
Arsenic	7.2		4.7	1.3	mg/Kg	1	⊗	6010C	Total/NA
Beryllium	0.76		0.47	0.094	mg/Kg	1	⊗	6010C	Total/NA
Barium	100		0.47	0.14	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.34	J	0.47	0.094	mg/Kg	1	⊗	6010C	Total/NA
Chromium	22		1.4	0.56	mg/Kg	1	⊗	6010C	Total/NA
Copper	25		1.9	0.72	mg/Kg	1	⊗	6010C	Total/NA
Lead	25	4 F2	1.4	0.56	mg/Kg	1	⊗	6010C	Total/NA
Nickel	15		0.94	0.38	mg/Kg	1	⊗	6010C	Total/NA
Zinc	74		1.9	0.75	mg/Kg	1	⊗	6010C	Total/NA
Mercury	0.054	J	0.063	0.021	mg/Kg	1	⊗	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client Sample Results

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Client Sample ID: Gate Posts
Date Collected: 06/12/24 12:30
Date Received: 06/13/24 11:43

Lab Sample ID: 410-175875-1
Matrix: Solid
Percent Solids: 90.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	9.7	!	1.0	1.0	%			06/14/24 08:32	1

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Surrogate Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	DBFM (50-141)	BFB (50-131)	TOL (52-141)
410-175875-1	Gate Posts	115	101	96	96
LCS 410-520996/4	Lab Control Sample	110	101	96	96
LCSD 410-520996/5	Lab Control Sample Dup	112	102	97	96
MB 410-520996/7	Method Blank	112	101	95	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (13-127)	F BP (29-120)	2FP (18-120)	NBZ (22-120)	PHL (20-120)	TPHd14 (36-123)
410-175875-1	Gate Posts	61	65	56	58	59	67
LCS 410-521360/2-A	Lab Control Sample	85	78	75	74	76	92
MB 410-521360/1-A	Method Blank	74	69	67	65	69	81

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BAPd12 (10-122)	FLN10 (15-126)	MNPd10 (22-120)	
410-175875-1	Gate Posts	85 cn	80 cn	81 cn	
LCS 410-521357/2-A	Lab Control Sample	89	80	79	
MB 410-521357/1-A	Method Blank	92	84	79	

Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)
FLN10 = Fluoranthene-d10 (Surr)
MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (66-130)	DCB2 (66-130)	TCX1 (68-130)	TCX2 (68-130)
410-175875-1	Gate Posts	84	89	92 cn	98 ^c cn
LCS 410-520156/2-A	Lab Control Sample	98	109	91	101

Surrogate Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (66-130)	DCB2 (66-130)	TCX1 (68-130)	TCX2 (68-130)
MB 410-520156/1-A	Method Blank	101	111	90	100

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

QC Sample Results

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-520996/7

Matrix: Solid

Analysis Batch: 520996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.60		5.0	0.60	ug/Kg			06/25/24 12:35	1
trans-1,3-Dichloropropene	<0.60		5.0	0.60	ug/Kg			06/25/24 12:35	1
Ethylbenzene	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Styrene	<0.90		5.0	0.90	ug/Kg			06/25/24 12:35	1
1,4-Dichlorobenzene	<0.90		5.0	0.90	ug/Kg			06/25/24 12:35	1
1,2-Dibromoethane	<0.70		5.0	0.70	ug/Kg			06/25/24 12:35	1
1,2-Dichloroethane	<0.60		5.0	0.60	ug/Kg			06/25/24 12:35	1
4-Methyl-2-pentanone	<2.0		10	2.0	ug/Kg			06/25/24 12:35	1
Methylcyclohexane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Toluene	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Chlorobenzene	<0.90		5.0	0.90	ug/Kg			06/25/24 12:35	1
Cyclohexane	<0.90		5.0	0.90	ug/Kg			06/25/24 12:35	1
1,2,4-Trichlorobenzene	<5.0		10	5.0	ug/Kg			06/25/24 12:35	1
Dibromochloromethane	<0.50		5.0	0.50	ug/Kg			06/25/24 12:35	1
Xylenes, Total	<0.70		10	0.70	ug/Kg			06/25/24 12:35	1
Tetrachloroethylene	<1.5		5.0	1.5	ug/Kg			06/25/24 12:35	1
cis-1,2-Dichloroethene	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
trans-1,2-Dichloroethene	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Methyl tertiary butyl ether	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
1,3-Dichlorobenzene	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Carbon tetrachloride	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
2-Hexanone	<2.5		10	2.5	ug/Kg			06/25/24 12:35	1
Acetone	<6.0		20	6.0	ug/Kg			06/25/24 12:35	1
Chloroform	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Benzene	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
1,1,1-Trichloroethane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Bromomethane	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Chloromethane	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Chloroethane	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Vinyl chloride	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Methylene Chloride	<2.0		5.0	2.0	ug/Kg			06/25/24 12:35	1
Carbon disulfide	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Bromoform	<5.0		10	5.0	ug/Kg			06/25/24 12:35	1
Bromodichloromethane	<0.70		5.0	0.70	ug/Kg			06/25/24 12:35	1
1,1-Dichloroethane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
1,1-Dichloroethene	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Trichlorofluoromethane	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Dichlorodifluoromethane	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
Freon 113	<0.90		10	0.90	ug/Kg			06/25/24 12:35	1
1,2-Dichloropropane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
2-Butanone	<2.0		10	2.0	ug/Kg			06/25/24 12:35	1
1,1,2-Trichloroethane	<0.70		5.0	0.70	ug/Kg			06/25/24 12:35	1
Trichloroethene	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Methyl acetate	<1.0		5.0	1.0	ug/Kg			06/25/24 12:35	1
1,1,2,2-Tetrachloroethane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
1,2-Dichlorobenzene	<0.90		5.0	0.90	ug/Kg			06/25/24 12:35	1
1,2-Dibromo-3-Chloropropane	<0.80		5.0	0.80	ug/Kg			06/25/24 12:35	1
Isopropylbenzene	<1.5		5.0	1.5	ug/Kg			06/25/24 12:35	1

QC Sample Results

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-520996/7

Matrix: Solid

Analysis Batch: 520996

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)		112			54 - 135		06/25/24 12:35	1
Dibromofluoromethane (Surr)		101			50 - 141		06/25/24 12:35	1
4-Bromofluorobenzene (Surr)		95			50 - 131		06/25/24 12:35	1
Toluene-d8 (Surr)		95			52 - 141		06/25/24 12:35	1

Lab Sample ID: LCS 410-520996/4

Matrix: Solid

Analysis Batch: 520996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
cis-1,3-Dichloropropene	20.0	21.1		ug/Kg		106	66 - 120	
trans-1,3-Dichloropropene	20.0	21.1		ug/Kg		106	68 - 122	
Ethylbenzene	20.0	19.4		ug/Kg		97	78 - 120	
Styrene	20.0	20.1		ug/Kg		101	76 - 120	
1,4-Dichlorobenzene	20.0	20.2		ug/Kg		101	80 - 120	
1,2-Dibromoethane	20.0	23.0		ug/Kg		115	76 - 120	
1,2-Dichloroethane	20.0	19.8		ug/Kg		99	71 - 128	
4-Methyl-2-pentanone	250	268		ug/Kg		107	67 - 128	
Methylcyclohexane	20.0	19.0		ug/Kg		95	61 - 124	
Toluene	20.0	19.7		ug/Kg		99	80 - 120	
Chlorobenzene	20.0	20.6		ug/Kg		103	80 - 120	
Cyclohexane	20.0	17.7		ug/Kg		88	58 - 126	
1,2,4-Trichlorobenzene	20.0	18.7		ug/Kg		94	56 - 130	
Dibromochloromethane	20.0	22.5		ug/Kg		113	69 - 125	
Xylenes, Total	60.0	58.8		ug/Kg		98	75 - 120	
Tetrachloroethene	20.0	18.7		ug/Kg		93	73 - 120	
cis-1,2-Dichloroethene	20.0	22.2		ug/Kg		111	80 - 125	
trans-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 126	
Methyl tertiary butyl ether	20.0	21.3		ug/Kg		106	72 - 120	
1,3-Dichlorobenzene	20.0	19.7		ug/Kg		99	75 - 120	
Carbon tetrachloride	20.0	18.3		ug/Kg		92	64 - 134	
2-Hexanone	250	256		ug/Kg		102	54 - 140	
Acetone	250	260		ug/Kg		104	41 - 150	
Chloroform	20.0	20.4		ug/Kg		102	80 - 120	
Benzene	20.0	21.2		ug/Kg		106	80 - 120	
1,1,1-Trichloroethane	20.0	18.7		ug/Kg		93	69 - 123	
Bromomethane	20.0	20.8		ug/Kg		104	45 - 140	
Chloromethane	20.0	19.2		ug/Kg		96	56 - 120	
Chloroethane	20.0	21.3		ug/Kg		107	43 - 135	
Vinyl chloride	20.0	20.2		ug/Kg		101	52 - 120	
Methylene Chloride	20.0	21.7		ug/Kg		108	76 - 122	
Carbon disulfide	20.0	19.0		ug/Kg		95	64 - 133	
Bromoform	20.0	21.9		ug/Kg		110	51 - 127	
Bromodichloromethane	20.0	21.6		ug/Kg		108	70 - 120	
1,1-Dichloroethane	20.0	20.1		ug/Kg		101	79 - 120	
1,1-Dichloroethene	20.0	19.8		ug/Kg		99	73 - 129	
Trichlorofluoromethane	20.0	19.3		ug/Kg		96	55 - 134	
Dichlorodifluoromethane	20.0	16.7		ug/Kg		84	21 - 127	

QC Sample Results

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-520996/4

Matrix: Solid

Analysis Batch: 520996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Freon 113	20.0	17.3		ug/Kg		87	64 - 135	
1,2-Dichloropropane	20.0	22.0		ug/Kg		110	80 - 120	
2-Butanone	250	226		ug/Kg		90	57 - 128	
1,1,2-Trichloroethane	20.0	23.5		ug/Kg		117	80 - 120	
Trichloroethene	20.0	20.6		ug/Kg		103	80 - 120	
Methyl acetate	20.0	18.8		ug/Kg		94	67 - 128	
1,1,2,2-Tetrachloroethane	20.0	23.8		ug/Kg		119	69 - 125	
1,2-Dichlorobenzene	20.0	20.5		ug/Kg		103	76 - 120	
1,2-Dibromo-3-Chloropropane	20.0	20.0		ug/Kg		100	48 - 134	
Isopropylbenzene	20.0	20.3		ug/Kg		102	77 - 120	
<hr/>								
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	110		54 - 135					
Dibromofluoromethane (Surr)	101		50 - 141					
4-Bromofluorobenzene (Surr)	96		50 - 131					
Toluene-d8 (Surr)	96		52 - 141					

Lab Sample ID: LCSD 410-520996/5

Matrix: Solid

Analysis Batch: 520996

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	21.6		ug/Kg		108	66 - 120	2	30
trans-1,3-Dichloropropene	20.0	21.9		ug/Kg		110	68 - 122	4	30
Ethylbenzene	20.0	19.8		ug/Kg		99	78 - 120	2	30
Styrene	20.0	20.5		ug/Kg		103	76 - 120	2	30
1,4-Dichlorobenzene	20.0	20.5		ug/Kg		103	80 - 120	2	30
1,2-Dibromoethane	20.0	24.1		ug/Kg		120	76 - 120	4	30
1,2-Dichloroethane	20.0	20.3		ug/Kg		101	71 - 128	3	30
4-Methyl-2-pentanone	250	281		ug/Kg		113	67 - 128	5	30
Methylcyclohexane	20.0	19.8		ug/Kg		99	61 - 124	5	30
Toluene	20.0	20.5		ug/Kg		103	80 - 120	4	30
Chlorobenzene	20.0	21.0		ug/Kg		105	80 - 120	2	30
Cyclohexane	20.0	18.3		ug/Kg		91	58 - 126	3	30
1,2,4-Trichlorobenzene	20.0	19.7		ug/Kg		98	56 - 130	5	30
Dibromochloromethane	20.0	22.8		ug/Kg		114	69 - 125	1	30
Xylenes, Total	60.0	60.6		ug/Kg		101	75 - 120	3	30
Tetrachloroethylene	20.0	19.4		ug/Kg		97	73 - 120	3	30
cis-1,2-Dichloroethene	20.0	22.7		ug/Kg		114	80 - 125	2	30
trans-1,2-Dichloroethene	20.0	21.5		ug/Kg		107	80 - 126	3	30
Methyl tertiary butyl ether	20.0	22.2		ug/Kg		111	72 - 120	4	30
1,3-Dichlorobenzene	20.0	20.5		ug/Kg		102	75 - 120	4	30
Carbon tetrachloride	20.0	18.9		ug/Kg		95	64 - 134	3	30
2-Hexanone	250	265		ug/Kg		106	54 - 140	4	30
Acetone	250	265		ug/Kg		106	41 - 150	2	30
Chloroform	20.0	21.1		ug/Kg		105	80 - 120	3	30
Benzene	20.0	21.9		ug/Kg		110	80 - 120	3	30
1,1,1-Trichloroethane	20.0	19.2		ug/Kg		96	69 - 123	3	30

QC Sample Results

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 410-175875-1 DU

Matrix: Solid

Analysis Batch: 522337

Client Sample ID: Gate Posts

Prep Type: Total/NA

Prep Batch: 521955

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.054	J	0.0508	J	mg/Kg	⊗	6	20

Lab Chronicle

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Client Sample ID: Gate Posts
Date Collected: 06/12/24 12:30
Date Received: 06/13/24 11:43

Lab Sample ID: 410-175875-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	517395	UVJN	ELLE	06/14/24 08:32

Client Sample ID: Gate Posts
Date Collected: 06/12/24 12:30
Date Received: 06/13/24 11:43

Lab Sample ID: 410-175875-1
Matrix: Solid
Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			520389	UK30	ELLE	06/23/24 00:30
Total/NA	Analysis	8260D		1	520996	ULCP	ELLE	06/25/24 19:19
Total/NA	Prep	3546			521360	MD4W	ELLE	06/25/24 17:22
Total/NA	Analysis	8270E		1	521564	N5QU	ELLE	06/26/24 18:33
Total/NA	Prep	3546			521357	MD4W	ELLE	06/25/24 17:20
Total/NA	Analysis	8270E SIM		5	521936	UJMO	ELLE	06/26/24 22:20
Total/NA	Prep	3546			520156	MD4W	ELLE	06/21/24 16:20
Total/NA	Analysis	8082A		1	520567	M6UH	ELLE	06/24/24 18:11
Total/NA	Prep	3050B			521607	HNC4	ELLE	06/26/24 09:30
Total/NA	Analysis	6010C		1	522240	MT26	ELLE	06/27/24 07:11
Total/NA	Prep	3050B			521607	HNC4	ELLE	06/26/24 09:30
Total/NA	Analysis	6010C		5	522240	MT26	ELLE	06/27/24 08:40
Total/NA	Prep	7471A			521955	UAMX	ELLE	06/26/24 22:30
Total/NA	Analysis	7471A		1	522337	UEFS	ELLE	06/27/24 09:08

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8270E SIM	3546	Solid	Bis(2-ethylhexyl) phthalate
8270E SIM	3546	Solid	Butylbenzylphthalate
8270E SIM	3546	Solid	Dibenzofuran
8270E SIM	3546	Solid	Diethyl phthalate
8270E SIM	3546	Solid	Dimethyl phthalate
8270E SIM	3546	Solid	Di-n-butyl phthalate
8270E SIM	3546	Solid	Di-n-octyl phthalate
8270E SIM	3546	Solid	N-Nitrosodiphenylamine
Moisture		Solid	Percent Moisture

Method Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010C	Metals (ICP)	SW846	ELLE
7471A	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471A	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

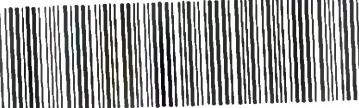
Sample Summary

Client: Hydro-Terra Group
Project/Site: NP York Stormwater

Job ID: 410-175875-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-175875-1	Gate Posts	Solid	06/12/24 12:30	06/13/24 11:43

1
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Environment

Chain of Custody Record

370472

HARRISBURG PA

eurofins

Environment Testing

410-175875 Chain of Custody

		Sampler: <u>Emily Wade</u>		Lab PM: Weyandt, Barbara A		Carrier Tracking No(s):		COC No: 410-123903-34146.1			
Emily Wade		Phone: 443-974-3956		E-Mail: Barbara.Weyandt@et.eurofins.com		State of Origin: PA		Page: Page 1 of 1			
Company: Hydro-Terra Group		PWSID:		Analysis Requested							
Address: 7420 Derry Street		Due Date Requested:									
City: Harrisburg		TAT Requested (days): Standard									
State, Zip: PA, 17111		Compliance Project: Yes No									
Phone: 717-980-5150(Tel)		PO #:									
Email: ewade@hydro-terra.com		Purchase Order not required									
Project Name: NP York Stormwater		WO #:									
Site: North Point		SSOW#:									
Sample Identification				Sample Date	Sample Time	Sample Type (C=Comp, G=grab) BT=Tissue, AF=Air	Matrix (W=water, S=solid, O=waste/oil, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Conform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
								X	N F		
Gorte Posts				6/12/24	1230	G/C	Solid	X	X X	5	
							Solid				
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months							
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <u>Emily Wade</u>	<u>SC</u>	Date/Time: 6/12/24 1520	Company: HTL	Received by: <u>R. C. Stoen</u>	Date/Time: 6/12/24 1520	Company: HTL					
Relinquished by: <u>R. C. Stoen</u>		Date/Time: 6/12/24 10:55	Company: HTL	Received by: <u>John Doe</u>	Date/Time: 6/13/24 10:55	Company: ELLC					
Relinquished by: <u>J. Doe</u>		Date/Time: 6/13/24 11:47	Company: ELLC	Received by: <u>Mary P.</u>	Date/Time: 6/13/24 11:47	Company: ELLC					
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 8.0 C: 2.9									

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Hydro-Terra Group

Job Number: 410-175875-1

Login Number: 175875

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Roth, Stephanie

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable, where thermal pres is required (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temp acceptable, where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	