GROUNDWATER SAMPLING & ENGINEERING CONTROL INSPECTION
509-545 EAST MAIN STREET BRANFORD, CONNECTICUT

509 BRANFORD LLC

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SIGNATURES

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1.0 INTRODUCTION

WSP USA Inc. (WSP) completed a groundwater sampling event and an inspection of the Engineered Control at the property identified as 509-545 East Main Street in Branford, Connecticut (the "Site"). The work was completed on behalf of 509 Branford LLC consistent with the groundwater monitoring and inspection and maintenance plans outlined in the May 2015 Remedial Action Plan by HRP Associates, Inc. (HRP).

The Site consists of 10.73-acres of land that is occupied by the Shoreline Trailer Park. The southern portion of the Site was historically utilized as a waste disposal area which included filling with coal ash, slag, demolition materials, and tar. In September 2004, the Site was entered into the Connecticut Department of Energy and Environmental Protection (CTDEEP) Voluntary Remediation Program. An Engineered Control (EC) was approved by the CTDEEP to prevent direct exposure to the underlying contaminated soils. The EC includes a synthetic pad or concrete pad beneath the residential trailer units and one foot of clean fill over a geotextile marking layer within the landscaped areas. The property owner is currently required to conduct annual groundwater monitoring and a physical inspection to ensure the effectiveness of the remediation.

The investigations presented in this report were performed under the supervision of a State of Connecticut Licensed Environmental Professional (LEP).

2.0 SITE LOCATION AND DESCRIPTION

The Site is located on the south side of East Main Street (Route 1) in Branford, Connecticut (Figure 1). The surrounding area includes commercial and residential properties. Nearby commercial uses include a gasoline filling station, People's United Bank, Tremonte Auto Group, and a medical office building.

The Site consists of 10.73-acres of land that is occupied by the Shoreline Trailer Park, which currently consists of approximately 60 trailer homes. The remainder of the Site is associated

driveways, parking areas and surrounding grassed, and landscaped areas. The Site is serviced by municipal water and sewer.

3.0 SITE BACKGROUND

Previous environmental investigations indicate that the Site was originally undeveloped land which included vegetated areas and farmland. The incremental Site development as the Shoreline Trailer Park began in 1954. Southern portion of the Site was identified as the East Main Street Disposal area following a complaint of waste seeping from the ground. An inspection of the Site by the CTDEEP revealed that an approximately 2-acres portion of the Site was filled with power plant wastes that included metals, cyanide, volatile organic compounds (VOCs), tar and slag to depths up to 10 feet below grade.

The Site was entered into the CTDEEP Voluntary Remediation Program in September 2004. Remedial efforts included the use of an environmental land use restriction (ELUR) and an Engineered Control (EC) to prevent exposure to the underlying impacted soils. The EC includes synthetic pads, consisting of a Controlled Low Strength Material (CLSM), beneath certain trailers, pavement, and one foot of clean fill over a geotextile marking fabric in the landscaped areas. Some of the pads have been replaced with poured concrete pads.

Previous investigations have identified a groundwater plume at the Site related to the buried waste materials. The plume was determined to be relatively stable with variable concentrations as a result of seasonal groundwater elevation changes and the amount of waste material in contact with the groundwater.

4.0 ENVIRONMENTAL SETTING

4.1 Regional Physiography

The Site is located on the U.S. Geological Survey (USGS), Branford, Connecticut topographical quadrangle. The Site is situated within a slight topographic valley at an elevation of approximately 40 feet to 50 feet above mean sea level (ft amsl) along East Main Street and at the

eastern extent of the Site and 30 feet at central and western portions. Area topography also rises up to the south of the Site.

4.2 Geologic Conditions

The surficial materials at the Site are mapped as two units. The approximate western portion of the property is mapped as sand whereas the remaining eastern half is mapped as glacial till indicating a dense matrix of sand, silt and gravel (Stone et al. USGS 1992). Bedrock is mapped beneath the Site as buttress dolerite described as a dark-gray, brown- to gray-weathering trap rock (Rodgers, 1985).

4.3 Hydrologic Characteristics and Known Groundwater Uses

Groundwater beneath the Site has a CTDEEP water-quality classification of Class "GA." A "GA" classification indicates groundwater is suitable for direct human consumption without pre-treatment and is likely a source of existing or potential public water supply (CTDEEP, 2009).

Groundwater has historically been encountered at the Site between approximately 0.1 to 4.9 feet below grade. Groundwater is inferred to flow generally to from east to west; however, topographic rise to the north and south of the Site is anticipated to result in variability within the groundwater flow direction. We note that localized flow variations may exist as a result of topography, stormwater drainage, streams, underground utilities or heterogeneous subsurface conditions.

The Branford River and Cooke Pond are located approximately 1,200 feet west of the Site. These surface water bodies are classified by the CTDEEP as Class "A." This designation indicates designated uses which may include potable water supply, habitat for fish and other aquatic life and wildlife; recreation; navigation; and water supply for industry and agriculture.

The CTDEEP Aquifer Protection Program web-based mapping series does not identify any aquifer protection areas within a one-half mile radius of the Site.

The Site area is serviced by a public water supply. HRP completed a well receptor survey which indicated no evidence of any private potable water wells were located within approximately 500 feet of the Site.

5.0 SCOPE OF WORK

WSP completed a round of groundwater sampling and a visual inspection of the EC on December 19, 2024. Details pertaining to our investigation methods are presented below.

5.1 Groundwater Sampling

The depth to groundwater was measured and groundwater samples were collected from three existing monitoring wells (MW-01, MW-02, and MW-04R). Well MW-3 was enclosed by a locked fence surrounding the area trailer unit 73. Groundwater was encountered at depths of 0.2 to 2.6 feet below grade as summarized in Table 1. Low flow sampling procedures were completed using a peristaltic pump with dedicated Tygon tubing and low-density polyethylene tubing. Groundwater quality parameters (pH, conductivity, turbidity, dissolved oxygen, temperature and the oxidation-reduction potential) were monitored using a Horiba U-55 multi-parameter water quality meter with measurements recorded on a low-flow sampling log (Appendix I). Following parameter stabilization, groundwater samples were collected and preserved for laboratory analysis. The monitoring well locations are shown on Figure 2.

The groundwater samples were placed in laboratory cleaned sample bottles, stored on ice, and transported under chain of custody to Phoenix for laboratory analysis of VOCs, polynuclear aromatic hydrocarbons (PAHs), extractable total petroleum hydrocarbons (ETPH), total RCRA 8 metals, and total cyanide.

5.2 Quality Assurance/Quality Control Procedures

The CTDEEP Quality Assurance/Quality Control (QA/QC) Work Group finalized Reasonable Confidence Protocols (RCPs) in August 2006. These RCPs are guidelines for enhanced QA/QC procedures for analytical methods and reporting. The CTDEEP currently recommends that

environmental professionals request that the laboratory follow the RCPs when producing data that is used as the basis of decisions regarding compliance with the RSRs. Our QA/QC data validation consisted of a review of Laboratory QA/QC Certification Form and confirmation of attainment of data quality objectives (i.e., applicable regulatory criteria).

The laboratory analyses and reporting relied upon in making this work product were conducted and produced by Phoenix in Manchester, Connecticut. Phoenix is a Connecticut Department of Public Health Certified Laboratory (Registration No. PH-0618). The Phoenix laboratory data report indicates compliance with the RCPs and the QA/QC procedures outlined in EPA 600/4-79-019, "Handbook for Analytical Quality in Water and Waste Water" and method QA/QC procedures from SW 846.

The results of our QA/QC procedures and analyses of the laboratory compliance with the RCPs have not identified any issues that would qualify the use of the environmental data generated by this investigation.

5.3 Engineered Control Inspection

WSP completed a site walk in the extent of the Engineered Control at the southern end of the Site on December 19, 2024. This portion of the Site consists of several trailers, paved drives, paved and/or dirt and gravel driveways, grassed areas and landscaped areas. Our inspection included a survey of the accessible portions of the Site that are mapped as part of the Engineered Control. Two new housing units were temporarily staged in a lawn area at the southern end of the Site awaiting installation. Photographs showing an overview of the accessible observed areas during our recent site walk are included in Appendix II.

6.0 SUMMARY OF ENVIRONMENTAL INVESTIGATION RESULTS

The following section summarizes the results of the environmental investigations completed at the Site. We have included a discussion regarding the application of the Remediation Standard

Regulations (RSRs) at the Site followed by a summary of the groundwater data. The locations of the monitoring wells are included on Figure 2. Laboratory results of the groundwater data are summarized in Table 2. Copies of the laboratory reports are presented in Appendix III.

6.1 Applying the Remediation Standard Regulations (RSRs)

The Site was entered into the CTDEEP Voluntary Remediation Program and is subject to the Remediation Standard Regulations (RSRs). The regulatory criteria within the RSRs are risk based cleanup standards promulgated to protect human health and the environment and as such, provide a useful frame of reference for which to evaluate the degree of detected contamination. Our recent groundwater investigation dataset is presented relative to the RSRs. Based on the environmental setting of the Site the applicable groundwater regulatory criteria are summarized below.

Groundwater Protection Criteria (GWPC)

The purpose of the Groundwater Protection Criteria (GWPC) is for the protection of human health from the consumption of untreated groundwater. These standards are generally consistent with the U.S. Environmental Protection Agency (U.S. EPA) National Primary Drinking Water Standards (Maximum Contaminant Level) and the Connecticut Department of Health Water Quality Standards. The GWPC is applicable as a result of the location of the Site in an area classified by the CTDEEP as Class GA and therefore the groundwater data was compared to the criteria.

Volatilization Criteria (VC)

The purpose of the Volatilization Criteria (VC) standard is to protect human health from risks associated with inhalation of volatile vapors which may migrate through building slabs into occupied spaces. Separate criteria are established for residential (R-VC) and industrial/commercial (I/C-VC) areas. Criteria are available for groundwater, soil vapor and indoor air concentrations; however, only compliance with the groundwater VC is necessary to demonstrate compliance with the RSRs. Given the use of the Site, we have presented the

groundwater data relative to the R-VC.

Surface Water Protection Criteria (SWPC)

The purpose of the SWPC standard is to evaluate if contaminated groundwater that discharges to a surface water body interferes with the attainment of surface water quality standards in that water body. The default SWPC were derived using the CTDEEP Water Quality Standards multiplied by a conservative estimation of dilution as the groundwater plume enters the receiving water body. Compliance with the SWPC is demonstrated on a site-wide basis by comparing the average plume concentrations or plume concentrations directly upgradient of the point of discharge to the receiving surface water body to the SWPC.

6.2 Groundwater Analytical Results

WSP collected groundwater samples from three existing monitoring wells (MW-01, MW-02, and MW-04R) at the Site. These groundwater samples were analyzed for VOCs, ETPH, PAHs, select metals and cyanide.

Consistent with prior sampling events, several petroleum related VOCs were detected in groundwater from monitoring well MW-01 including benzene and naphthalene at concentrations that exceed the GWPC and SWPC. Other petroleum related VOCs were below regulatory criteria. VOCs were not detected in groundwater from monitoring wells MW-02 and MW-04R.

ETPH was also detected at MW-01 at a concentration of 1.6 mg/L which exceeds the GWPC and SWPC. ETPH was not identified in the other sampled monitoring wells.

Several PAHs were detected in monitoring well MW-01. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and benzo(k)fluoranthene were detected at concentrations that exceeded the GWPC and SWPC. Other PAHs were also detected above the GWPC or the SWPC at well MW-01. PAHs were not detected in groundwater from the other Site wells.

Total cyanide was detected in well MW-01 at a concentration that was below regulatory criteria.

Total cyanide was not identified in groundwater from the other sampled monitoring wells.

Metals were detected in groundwater from each of the Site wells at concentrations that were consistent with typical background conditions with the exception of arsenic and lead in groundwater from well MW-01. The concentrations of arsenic and lead both exceeded the SWPC.

6.3 Visual Inspection of Engineered Control

The area of the Engineered Control (EC) was consistent with prior inspections with no evidence of erosion or fallen trees. The lawn areas, pavement, and pads were observed to be intact. Some puddled areas were identified across the EC in areas of gravel, grass and pavement as a result of a recent rain event. No failures within the EC cap were noted.

7.0 FINDINGS AND CONCLUSIONS

This report represents the results of our December 2024 groundwater sampling event and inspection of the Engineered Control of the property located at 509-545 East Main Street in Branford, Connecticut (the "Site"). The Site consists of 10.73-acres of land that is occupied by the Shoreline Trailer Park which includes approximately 60 trailers, paved driveways, and associated parking areas, lawn, and landscaped areas.

The Site was developed with the current Shoreline Trailer Park in 1954. The southern portion of the property was historically utilized as a waste disposal area which including filling with coal ash, slag, demolition materials and tar.

The Site was entered into the CTDEEP Voluntary Remediation Program in September 2004. An Engineered Control (EC) was approved by the CTDEEP to prevent direct exposure to the underlying contaminated soils. The EC includes a synthetic pad beneath the trailers and one foot of clean fill over a geotextile marking layer within the landscaped areas. Paved areas are underlain by 8-inches of processed clean fill and the geotextile marking layer.

Surficial materials beneath the Site are mapped as sands at the approximate western half of the parcel and glacial till at the remaining eastern half of the Site. Groundwater at the Site is located in an area identified by the CTDEEP as Class "GA", indicating that the groundwater is presumed to be suitable for direct human consumption. Groundwater was observed within the monitoring wells at the Site during this sampling round approximately 0.2 to 2.6 feet below grade. Groundwater is inferred to flow generally to from east to west; however, topographic rise to the north and south of the Site is anticipated to result in variability within the groundwater flow direction. Additional localized flow variations may exist in other Site areas as a result of irregular topography, underground utilities or heterogeneous subsurface conditions.

Our work included the sampling and laboratory analysis of three groundwater samples and the visual inspection of the EC at the property. The findings of our work are summarized as follows:

1. The groundwater results were consistent with prior sampling results. Impacts to groundwater were primarily detected at well MW-01 with elevated detections of VOCs, ETPH, PAHs and cyanide. The concentrations of benzene, several PAHs, and cyanide exceed the GWPC and/or the numerical SWPC. Metals including arsenic and lead also exceeded the GWPC and/or SWPC. We note that downgradient groundwater can be used to demonstrate compliance with the SWPC.
2. The Engineered Control (EC) was in in-tact condition with no evidence of erosion, fallen trees, or pavement failure. The EC appeared to be functioning as an effective barrier to the underlying polluted soils.

Our findings indicate that the waste disposal area remains a source for groundwater contamination at the Site in the area of monitoring well MW-01. The constituents of concern appear to be in steady state with little variation over multiple sampling events. HRP has demonstrated that no potable wells are present within 500 feet of the Site. Accordingly, continual annual groundwater monitoring at the Site during the EC inspection is prudent to monitor the plume.

REFERENCES

Connecticut Department of Energy and Environmental Protection (CTDEEP). 2021. *Remediation Standard Regulations*. Regulations of Connecticut State Agencies Sections 22a-133k–1 through 22a-133k-3.

CTDEEP 2006. *Guidance for Collecting and Preserving Soil and Sediment Samples for Laboratory Determination of Volatile Organic Compounds.*

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HRP Associates, Inc. (HRP). 2017. Groundwater Monitoring and Inspection of Engineered Control, Shoreline Trailer Park, 509-545 East Main Street, Branford, Connecticut.

Rodger, John, Bedrock Geological Map of Connecticut, CTDEEP/United States Geological Survey, 1985.

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USGS 1984. Branford, Connecticut Quadrangle Map.

TABLES

Table 1

SHORELINE TRAILER PARK
509-545 EAST MAIN STREET
BRANFORD, CONNECTICUT

Summary of Well Gauging Data

Well ID / Top of casing elevation (feet) [1/]	Date	Depth to water below casing (ft)	Depth to water below ground surface (ft)	Groundwater elevation (feet) [1/]
MW-01	6/13/2016	4.48	2.48	96.90
101.38	6/27/2017	4.05	2.05	97.33
	4/18/2018	2.33	0.33	99.05
	6/5/2019	3.37	1.37	98.01
	4/30/2020	2.95	0.95	98.43
	12/9/2022	2.56	0.56	98.82
	12/21/2023	2.05	0.05	99.33
	12/19/2024	2.20	0.20	99.18
MW-02	6/13/2016	7.12	4.70	97.33
104.45	6/27/2017	6.89	4.47	97.56
	4/18/2018	5.00	2.58	99.45
	6/5/2019	5.68	3.26	98.77
	4/30/2020	5.79	3.37	98.66
	12/9/2022	5.45	3.03	99.00
	12/21/2023	4.34	1.92	100.11
	12/19/2024	4.38	1.96	100.07
MW-03	6/13/2016	6.45	4.78	98.81
105.26	6/27/2017	6.23	4.56	99.03
	4/18/2018	2.17	0.50	103.09
	6/15/2009	NM	NM	NM
	4/30/2020	NM	NM	NM
	12/9/2022	NM	NM	NM
	12/21/2023	NM	NM	NM
	12/19/2024	NM	NM	NM
MW-04R	6/13/2016	4.90	4.90	96.73
101.63	6/27/2017	4.65	4.65	96.98
	4/18/2018	3.34	3.34	98.29
	6/5/2019	3.60	3.60	98.03
	4/30/2020	3.89	3.89	97.74
	12/9/2022	3.96	3.96	97.67
	12/21/2023	2.74	2.74	98.89
	12/19/2024	2.60	2.60	99.03

1/ Elevations are based on HRP survey data and an arbitary datum.
NM: Depth to water was not measured as the well was not accessible.

Table 2

PYRAMID REAL ESTATE GROUP
509-545 EAST MAIN STREET
BRANFORD, CONNECTICUT

Analytical Results of Groundwater Samples

	Units	Regulatory Criteria GWPC	SWPC	R-GWVC	MW-01 6/27/17	MW-01 4/19/18	MW-01 6/5/19	MW-01 4/30/20	MW-01 12/30/21	MW-01 12/9/22	MW-01 12/18/23	MW-01 12/19/24	MW-02 6/27/17	MW-02 4/19/18	MW-02 6/5/19	MW-02 4/30/20	MW-02 12/30/21
Total Metals & Cyanide																	
Arsenic	mg/L	0.05	0.004	NA	ND<0.004	**0.007**	ND<0.004	**0.009**	ND<0.004	ND<0.004	ND<0.004	**0.008**	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
Barium	mg/L	1	NE	NA	0.425	0.408	0.448	0.46	0.178	0.406	0.396	0.399	0.046	0.016	0.043	0.022	0.234
Cadmium	mg/L	0.005	0.006	NA	0.002	ND<0.001	0.002	0.004	ND<0.001	ND<0.001	0.002	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
Chromium	mg/L	0.05	1.2	NA	0.005	0.016	0.008	0.018	0.001	0.007	0.003	0.016	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
Lead	mg/L	0.015	0.013	NA	0.008	**0.066**	**0.021**	**0.088**	ND<0.002	0.012	0.013	**0.06**	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002
Mercury	mg/L	0.002	0.0004	NA	ND<0.0002	0.0003	ND<0.0002	0.0005	ND<0.0002	ND<0.0002	ND<0.0002	0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002
Selenium	mg/L	0.05	0.05	NA	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Silver	mg/L	0.036	0.012	NA	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
Total Cyanide	mg/L	0.2	0.052	NA	**1.92**	**1.68**	**1.72**	**1.03**	**1.73**	**1.72**	**0.402**	0.02	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Extractable Total Petroleum Hydrocarbons (ETPH)	mg/L	0.25	NE	NA	**0.86**	**1.3**	**1.3**	**1.5**	**1.4**	**1.6**	0.25	**1.6**	ND<0.070	ND<0.067	ND<0.070	ND<0.069	ND<0.067
Volatile Organic Compounds (VOCs)																	
1,2,4-Trimethylbenzene	ug/L	140	150	940	2.9	4.9	4.2	ND<20	5	7.6	3.6	5.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1,3,5-Trimethylbenzene	ug/L	140	260	730	1.5	2.2	1.6	ND<20	1.6	1.8	ND<1.0	1	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Benzene	ug/L	1	710	215	**13**	**15**	**11**	**16**	**11**	**21**	**2**	**16**	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70
Bromodichloromethane	ug/L	1	510	1.1	ND	ND<0.50	ND<0.50	ND<10	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Chloroform	ug/L	6	14,100	26	ND<1.0	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Ethylbenzene	ug/L	700	580,000	50,000	130	120	74	100	19	36	10	33	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Isopropylbenzene	ug/L	25	210	900	6.5	7.6	5.4	ND<20	5.3	10	4	8.4	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Naphthalene	ug/L	280	210	NE	**420**	**580**	**330**	**750**	200	**460**	63	**440**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
n-Butylbenzene	ug/L	350	10,000	1,600	ND<1.0	1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
n-Propylbenzene	ug/L	50	10,000	1,200	ND<1.0	1.0	ND<1.0	ND<20	1	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
p-Isopropyltoluene	ug/L	25	200	870	ND<1.0	1.5	1.0	ND<20	1.1	1.6	ND<1.0	1.1	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Toluene	ug/L	1,000	4,000,000	23,500	3.2	3.5	2.2	ND<20	ND<1.0	1.5	ND<1.0	1.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Total Xylenes	ug/L	530	270	21,300	8.1	10	9.2	ND<20	8.5	12.8	3.2	8	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Polynuclear Aromatic Hydrocarbons (PAHs)																	
2-Methylnaphthalene	ug/L	28	62	NA	ND<0.05	ND<16	6.9	9.2	4.6	6.2	3.4	12	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Acenaphthene	ug/L	420	150	NA	33	63	71	81	48	96	38	52	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Acenaphthylene	ug/L	420	0.3	NA	**1.6**	ND<6.6	**1.9**	**1.1**	**1.9**	**1.6**	**1.1**	**1.3**	ND<0.05	ND<0.05	ND<0.05	ND<0.30	ND<0.30
Anthracene	ug/L	2,000	1,100,000	NA	4.1	ND<16	9.5	6.5	5.2	4.2	3.3	5.6	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Benz(a)anthracene	ug/L	0.06	0.3	NA	**0.66**	ND<16	**5.3**	**3.5**	**2.5**	**1.5**	**1.2**	**1.9**	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Benzo(a)pyrene	ug/L	0.2	0.3	NA	**0.24**	ND<16	**3.2**	**1.1**	**2**	**0.99**	**0.96**	**1.3**	ND<0.05	ND<0.05	ND<0.05	ND<0.20	ND<0.20
Benzo(b)fluoranthene	ug/L	0.08	0.3	NA	**0.51**	ND<16	**2.9**	**2.7**	**1.7**	**0.85**	**0.77**	**1.2**	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.07
Benzo(ghi)perylene	ug/L	0.48	150	NA	**0.21**	**ND<7.5**	**2.3**	**1**	**0.91**	ND<0.48	**0.52**	**0.82**	ND<0.05	ND<0.05	ND<0.05	ND<0.48	ND<0.48
Benzo(k)fluoranthene	ug/L	0.5	0.3	NA	**0.38**	ND<16	**3.1**	**1.8**	**2**	**0.78**	**0.7**	**1.1**	ND<0.05	ND<0.05	ND<0.05	ND<0.30	ND<0.30
Chrysene	ug/L	4.8	0.54	NA	**0.65**	ND<16	**4.1**	**3.3**	**2.2**	**1.2**	**1**	**1.6**	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Dibenz(a,h)anthracene	ug/L	0.1	0.3	NA	0.11	ND<7.5	0.66	0.49	**0.3**	0.12	**0.16**	**0.18**	ND<0.01	ND<0.01	ND<0.01	ND<0.10	ND<0.10
Fluoranthene	ug/L	280	3,700	NA	5.7	27	25	27	12	7.4	5.3	8.8	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Fluorene	ug/L	280	140,000	NA	29	53	57	75	32	58	26	40	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50
Indeno(1,2,3-cd)pyrene	ug/L	0.1	0.54	NA	**0.25**	ND<8.0	**2.5**	**1.2**	**1.3**	**0.55**	**0.62**	**0.79**	ND<0.05	ND<0.05	ND<0.05	ND<0.10	ND<0.10
Naphthalene	ug/L	280	210	NA	ND<0.10	**510**	**430**	**400**	110	**260**	25	**240**	ND<0.10	ND<0.09	ND<0.09	ND<0.50	ND<0.50
Phenanthrene	ug/L	200	14	NA	9.7	**33**	**35**	**50**	**17**	**34**	**16**	**23**	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.06
Pyrene	ug/L	200	110,000	NA	2.7	20	17	6	7.6	4.7	3.9	6.3	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.50

mg/L: milligrams per liter
ug/L: micrograms per liter
GWPC: Groundwater Protection Criteria
SWPC: Surface Water Protection Criteria
R-GWVC: Residential Groundwater Volatilization Criteria

Bold: Exceeds one or more criterion
ND<: Not detected above laboratory reporting criteria

Table 2

PYRAMID REAL ESTATE GROUP
509-545 EAST MAIN STREET
BRANFORD, CONNECTICUT

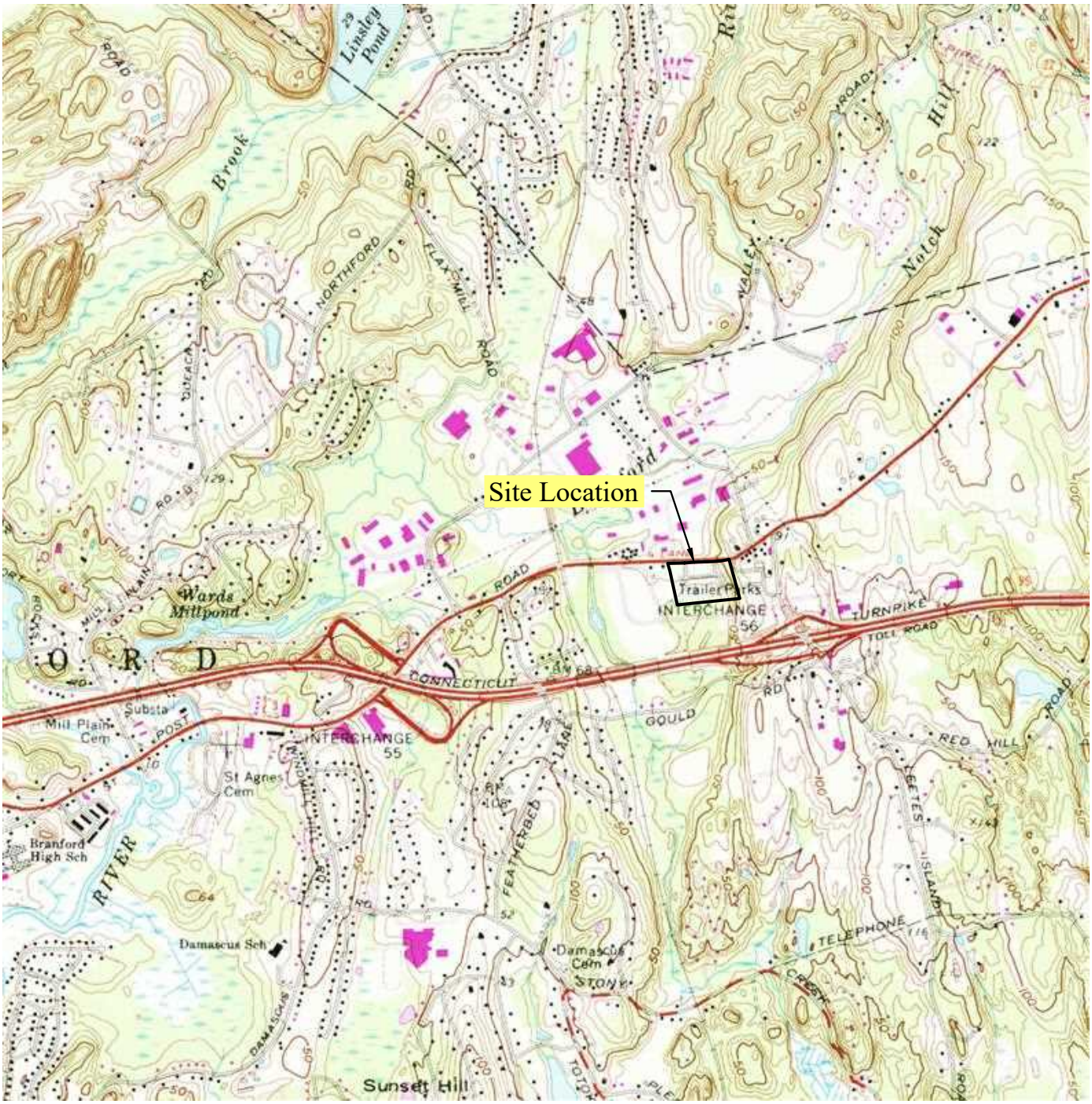
Analytical Results of Groundwater Samples

	Units	Regulatory Criteria GWPC	SWPC	R-GWVC	MW-02 12/9/22	MW-02 12/18/23	MW-02 12/19/24	MW-03 6/27/17	MW-03 4/19/18	MW-04R 6/27/17	MW-04R 4/19/18	MW-04R 6/5/19	MW-04R 4/30/20	MW-04R 12/30/21	MW-04R 12/9/22	MW-04R 12/18/23	MW-04R 12/19/24
Total Metals & Cyanide																	
Arsenic	mg/L	0.05	0.004	NA	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
Barium	mg/L	1	NE	NA	0.038	0.02	0.029	0.072	0.053	0.037	0.052	0.015	0.03	ND<0.002	0.022	0.016	0.016
Cadmium	mg/L	0.005	0.006	NA	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
Chromium	mg/L	0.05	1.2	NA	ND<0.001	ND<0.001	ND<0.001	0.001	ND<0.001	ND<0.001	0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.002	0.001
Lead	mg/L	0.015	0.013	NA	0.001	ND<0.001	ND<0.001	**0.027**	0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.001	ND<0.001	ND<0.001
Mercury	mg/L	0.002	0.0004	NA	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002	ND<0.0002
Selenium	mg/L	0.05	0.05	NA	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Silver	mg/L	0.036	0.012	NA	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
Total Cyanide	mg/L	0.2	0.052	NA	ND<0.010	ND<0.010	ND<0.010	ND<0.010	0.013	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Extractable Total Petroleum Hydrocarbons (ETPH)	mg/L	0.25	NE	NA	ND<0.075	ND<0.074	ND<0.071	ND<0.070	ND<0.067	ND<0.070	ND<0.067	ND<0.070	ND<0.069	ND<0.067	ND<0.072	ND<0.070	ND<0.067
Volatile Organic Compounds (VOCs)																	
1,2,4-Trimethylbenzene	ug/L	140	150	940	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1,3,5-Trimethylbenzene	ug/L	140	260	730	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Benzene	ug/L	1	710	215	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70	ND<0.70
Bromodichloromethane	ug/L	1	510	1.1	ND<0.50	ND<0.50	ND<0.50	ND	ND<0.50	ND	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.4**	ND<0.50
Chloroform	ug/L	6	14,100	26	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	**14**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	**24**	ND<1.0
Ethylbenzene	ug/L	700	580,000	50,000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Isopropylbenzene	ug/L	25	210	900	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Naphthalene	ug/L	280	210	NE	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
n-Butylbenzene	ug/L	350	10,000	1,600	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
n-Propylbenzene	ug/L	50	10,000	1,200	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
p-Isopropyltoluene	ug/L	25	200	870	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Toluene	ug/L	1,000	4,000,000	23,500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Total Xylenes	ug/L	530	270	21,300	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Polynuclear Aromatic Hydrocarbons (PAHs)																	
2-Methylnaphthalene	ug/L	28	62	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Acenaphthene	ug/L	420	150	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Acenaphthylene	ug/L	420	0.3	NA	ND<0.30	ND<0.28	ND<0.30	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.30	ND<0.28	ND<0.30	ND<0.30	ND<0.29
Anthracene	ug/L	2,000	1,100,000	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Benz(a)anthracene	ug/L	0.06	0.3	NA	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Benzo(a)pyrene	ug/L	0.2	0.3	NA	ND<0.20	ND<0.19	ND<0.20	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.20	ND<0.19	ND<0.21	ND<0.20	ND<0.19
Benzo(b)fluoranthene	ug/L	0.08	0.3	NA	ND<0.07	ND<0.07	ND<0.07	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.07	ND<0.07	ND<0.07	ND<0.07
Benzo(ghi)perylene	ug/L	0.48	150	NA	ND<0.48	ND<0.45	ND<0.48	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.48	ND<0.45	ND<0.50	ND<0.48	ND<0.46
Benzo(k)fluoranthene	ug/L	0.5	0.3	NA	ND<0.30	ND<0.28	ND<0.30	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.30	ND<0.28	ND<0.30	ND<0.30	ND<0.29
Chrysene	ug/L	4.8	0.54	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Dibenz(a,h)anthracene	ug/L	0.1	0.3	NA	ND<0.10	ND<0.09	ND<0.10	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.10	ND<0.09	ND<0.11	ND<0.10	ND<0.10
Fluoranthene	ug/L	280	3,700	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Fluorene	ug/L	280	140,000	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Indeno(1,2,3-cd)pyrene	ug/L	0.1	0.54	NA	ND<0.10	ND<0.09	ND<0.10	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.10	ND<0.09	ND<0.11	ND<0.10	ND<0.10
Naphthalene	ug/L	280	210	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.10	ND<0.09	ND<0.10	ND<0.09	ND<0.09	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48
Phenanthrene	ug/L	200	14	NA	ND<0.06	ND<0.06	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.06	ND<0.06	ND<0.06	ND<0.06
Pyrene	ug/L	200	110,000	NA	ND<0.50	ND<0.47	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.50	ND<0.47	ND<0.53	ND<0.52	ND<0.48

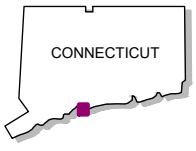
mg/L: milligrams per liter
ug/L: micrograms per liter
GWPC: Groundwater Protection Criteria
SWPC: Surface Water Protection Criteria
R-GWVC: Residential Groundwater Volatilization Criteria

Bold: Exceeds one or more criterion
ND<: Not detected above laboratory reporting crite

FIGURES



SOURCE: USGS TOPOGRAPHIC QUADRANGLE BRANFORD, CONNECTICUT (PHOTOREVISED 1984).



QUADRANGLE LOCATION

0 2000

SCALE IN FEET

509-545 EAST MAIN STREET
BRANFORD, CONNECTICUT

SITE LOCATION MAP

DATE	REVISED

PREPARED BY:

WSP USA
4 Research Drive
Suite 204
Shelton, Connecticut 06484
(203) 929-8555

DRAWN:	RAC	CHECKED:	MS	DATE:	08/04/18	FIGURE:	1

LEGEND

- PROPERTY BOUNDARY
- MONITOR WELL LOCATION
- APPROXIMATE LIMITS OF ENGINEERED CONTROL

0 100
SCALE IN FEET

509-545 EAST MAIN STREET
BRANFORD, CONNECTICUT

SITE PLAN

DATE	REVISED

PREPARED BY:

WSP USA
4 Research Drive
Suite 204
Shelton, Connecticut 06484
(203) 929-8555

DRAWN:	RAC	CHECKED:	MS	DATE:	06/05/19	FIGURE:	2

APPENDIX I

WSP USA

PAGE 1 OF 1

SAMPLE DATE: 12/19/2024

LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 3

Client Name: Pyramid
Project Location: 509-545 E Main Street Branford
Sampler(s): MS

Sample Pump: Geopump (US ENV)
Tubing Type: LDPE - Tygon -
Monitoring Equipment: Horiba (US ENV)

Well I.D. MW-01
Well Diameter (inches): 2
Total Depth (ft btoc):
Depth to Water (ft btoc): 2.20 (PVC) 2.90 (standpipe)*

Screen Setting (ft btoc): ____ to ____
Tubing Intake (ft btoc):
Comments: Pump on at 1201
Horiba full at 1205

Well Condition: standpipe; no plug

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mV)
1206	3.85	150	6.03	0.934	7.8	--	10.47	-67
1209	3.85		6.08	0.933	8.5	--	10.66	-86
1212	3.85		6.09	0.932	7.0	--	10.66	-87
1215	3.85		6.09	0.932	7.9	--	10.68	-87
*DO not on horiba								

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Total Removed > Change in	pH	Conductivity (%)	Turbidity (%)	Dissolved oxygen (%)	Temperature (%)	ORP (mv)
1209	1212	0.00		0.01	0.1%	17.6%		0.0%	1
1212	1215	0.00		0.00	0.0%	11.4%		0.2%	0
1209	1215	0.00		0.01	0.1%	7.1%		0.2%	1
Recommended Stabilization		≤ 0.3 ft. total	NA	+/- 0.1 unit	+/- 3%	<5 NTU or +/- 10%	+/- 10% if >0.5	+/- 3%	+/- 10 mv
Stabilization: (Yes/No)		TRUE		TRUE	TRUE	FALSE		TRUE	TRUE

Sample Time: 1215 VOCs, ETPH, PAHs, 8 RCRA Metals, Total cyanide

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	°C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimens per centimeter	ms/cm	milliseimens per centimeter		

WSP USA

PAGE 1 OF 1

SAMPLE DATE: 12/19/2024

TOTAL # WELLS: 3

LOW-FLOW SAMPLING LOG

Client Name: Pyramid

Project Location: 509-545 E Main Street Branford

Sampler(s): MS

Sample Pump: Geopump (US ENV)

Tubing Type: LDPE - Tygon -

Monitoring Equipment: Horiba (US ENV)

Well I.D. MW-02

Well Diameter (inches): 2

Total Depth (ft btoc):

Depth to Water (ft btoc): 4.38

Screen Setting (ft btoc): to

Tubing Intake (ft btoc):

Comments: Pump on at 1238 - initial water to ground

Horiba full at 1300 - black floating particles

Well Condition: standpipe; no plug

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters: pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mV)
1302	4.49	150	5.90	0.227	1.0	--	14.99	102
1305	4.49	150	5.90	0.228	1.1	--	14.92	110
1308	4.49		5.91	0.230	0.6	--	14.83	113
1311	4.49		5.93	0.229	0.0	--	14.69	116
1314	4.49		5.93	0.228	0.0	--	14.50	123
*DO not on horiba								

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Total Removed > Change in Storage (Y/N)?	pH	Conductivity (%)	Turbidity (%)	Dissolved oxygen (%)	Temperature (%)	ORP (mv)
1308	1311	0.00		0.02	0.4%	< 5		0.9%	3
1311	1314	0.00		0.00	0.4%	< 5		1.3%	7
1308	1314	0.00		0.02	0.9%	< 5		2.2%	10
Recommended Stabilization		≤ 0.3 ft. total	NA	+/- 0.1 unit	+/- 3%	<5 NTU or +/- 10%	+/- 10% if >0.5 mg/L	+/- 3%	+/- 10 mv
Stabilization: (Yes/No)		TRUE		TRUE	TRUE	TRUE		TRUE	TRUE

Sample Time: 1315 VOCs, ETPH, PAHs, 8 RCRA Metals, Total cyanide

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	°C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimens per centimeter	ms/cm	milliseimens per centimeter		

WSP USA

LOW-FLOW SAMPLING LOG

PAGE 1 OF 1

SAMPLE DATE: 12/19/2024

TOTAL # WELLS: 3

Client Name: Pyramid

Project Location: 509-545 E Main Street Branford

Sampler(s): MS

Sample Pump: Geopump (US ENV)

Tubing Type: LDPE - Tygon -

Monitoring Equipment: Horiba (US ENV)

Well I.D. MW-04R

Well Diameter (inches): 2

Total Depth (ft btoc):

Depth to Water (ft btoc): 2.6

Screen Setting (ft btoc): _____ to _____

Tubing Intake (ft btoc):

Comments: Pump on at 1107

Horiba full at 1111

Well Condition: flush mount; two bolts; expansion plug

Time (hours)	Depth to Water (ft btoc)	Evacuation Rate (ml/min)	Water Quality Monitoring Parameters					
			pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (^{o}C)	ORP (mV)
1111	3.02	~150	6.10	0.170	12.1	--	17.91	209
1114	3.02		6.33	0.168	11.4	--	17.39	194
1117	3.02		6.35	0.178	10.4	--	15.25	196
1120	3.02		6.39	0.182	9.9	--	14.54	200
1123	3.02		6.36	0.184	10.2	--	14.31	203
1126	3.02		6.38	0.185	10.7	--	14.30	203
1129	3.02		6.38	0.185	10.0	--	14.29	204
*DO not on horiba								

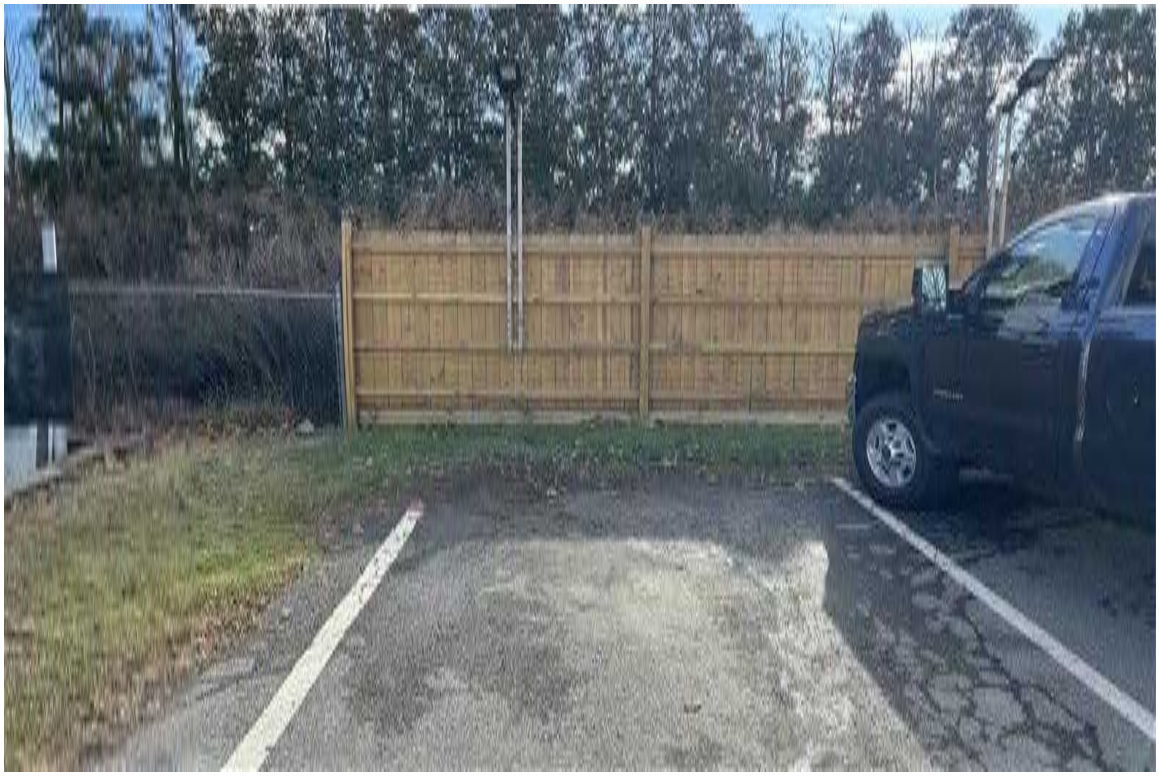
Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time FROM	Time TO	Depth to Water (ft btoc)	Total Removed > Change in Storage (Y/N)?	pH	Conductivity (%)	Turbidity (%)	Dissolved oxygen (%)	Temperature (%)	ORP (mv)
1123	1126	0.00		0.02	0.5%	4.7%		0.1%	0
1126	1129	0.00		0.00	0.0%	6.5%		0.1%	1
1123	1129	0.00		0.02	0.5%	2.0%		0.1%	1
Recommended Stabilization		≤ 0.3 ft. total	NA	+/- 0.1 unit	+/- 3%	<5 NTU or +/- 10%	+/- 10% if >0.5 mg/L	+/- 3%	+/- 10 mv
Stabilization: (Yes/No)		TRUE		TRUE	TRUE	TRUE		TRUE	TRUE

Sample Time: 1130 VOCs, ETPH, PAHs, 8 RCRA Metals, Total cyanide

ft btoc	feet below top of casing	NTU	Nephelometric Turbidity Units	^{o}C	degrees Celsius
ml/min	milliliters per minute	mg/l	milligrams per liter	mv	millivolts
µs/cm	microseimens per centimeter	ms/cm	milliseimens per centimeter		

APPENDIX II




10775

APPENDIX III

Tuesday, December 31, 2024

Attn: Darrick Jones
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

Project ID: **BTP**
SDG ID: **GCS32536**
Sample ID#s: **CS32536 - CS32538**

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.

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
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

NY # 11301

SDG Comments

December 31, 2024

SDG I.D.: GCS32536

Volatile 8260 analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, these compounds are analyzed by GC/ECD to achieve this criteria.

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

Sample Id Cross Reference

December 31, 2024

SDG I.D.: GCS32536

Project ID: BTP

Client Id	Lab Id	Matrix
MW-01	CS32536	GROUND WATER
MW-02	CS32537	GROUND WATER
MW-04R	CS32538	GROUND WATER

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

Analysis Report

December 31, 2024

FOR: Attn: Darrick Jones
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	MS	12/19/24	12:15
Location Code:	WSP	Received by:	SR1	12/19/24	17:54
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCS32536
Phoenix ID: CS32536

Project ID: BTP
Client ID: MW-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Arsenic	0.008	0.004	mg/L	1	12/26/24	CPP	SW6010D
Barium	0.399	0.002	mg/L	1	12/26/24	CPP	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Chromium	0.016	0.001	mg/L	1	12/26/24	CPP	SW6010D
Mercury	0.0002	0.0002	mg/L	1	12/20/24	ZT	SW7470A
Lead	0.060	0.001	mg/L	1	12/26/24	CPP	SW6010D
Selenium	< 0.010	0.010	mg/L	1	12/26/24	CPP	SW6010D
Total Cyanide	0.020	0.010	mg/L	1	12/24/24	K/A/G	SW9010C/SW9012B
Extraction of ETPH	Completed				12/23/24	Z/MQ	SW3510C/SW3520C
Mercury Digestion	Completed				12/20/24	AK/AK	SW7470A
Semi-Volatile Extraction	Completed				12/24/24	Z/K	SW3520C
Total Metals Digestion	Completed				12/24/24	AG	SW3010A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1.6	0.076	mg/L	1	12/25/24	JRB	CTETPH
Identification	**		mg/L	1	12/25/24	JRB	CTETPH
QA/QC Surrogates							
% Terphenyl (surr)	61		%	1	12/25/24	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	12/22/24	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D

Project ID: BTP
Client ID: MW-01

Phoenix I.D.: CS32536

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2,4-Trimethylbenzene	5.3	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	12/22/24	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	12/22/24	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	12/22/24	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,3,5-Trimethylbenzene	1.0	1.0	ug/L	1	12/22/24	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	12/22/24	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	12/22/24	MH	SW8260D
Acetone	ND	25	ug/L	1	12/22/24	MH	SW8260D
Acrylonitrile	ND	0.50	ug/L	1	12/22/24	MH	SW8260D
Benzene	16	0.70	ug/L	1	12/22/24	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	12/22/24	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	12/22/24	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	12/22/24	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	12/22/24	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Ethylbenzene	33	5.0	ug/L	5	12/23/24	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	12/22/24	MH	SW8260D
Isopropylbenzene	8.4	1.0	ug/L	1	12/22/24	MH	SW8260D
m&p-Xylene	1.8	1.0	ug/L	1	12/22/24	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	12/22/24	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Naphthalene	440	20	ug/L	20	12/23/24	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D

Project ID: BTP
Client ID: MW-01

Phoenix I.D.: CS32536

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	6.2	1.0	ug/L	1	12/22/24	MH	SW8260D
p-Isopropyltoluene	1.1	1.0	ug/L	1	12/22/24	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Styrene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	12/22/24	MH	SW8260D
Toluene	1.2	1.0	ug/L	1	12/22/24	MH	SW8260D
Total Xylenes	8.0	1.0	ug/L	1	12/22/24	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	12/22/24	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	12/22/24	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	12/22/24	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	12/22/24	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	12/22/24	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	12/22/24	MH	70 - 130 %
% Toluene-d8	98		%	1	12/22/24	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	94		%	5	12/23/24	MH	70 - 130 %
% Bromofluorobenzene (5x)	97		%	5	12/23/24	MH	70 - 130 %
% Dibromofluoromethane (5x)	93		%	5	12/23/24	MH	70 - 130 %
% Toluene-d8 (5x)	96		%	5	12/23/24	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (20x)	93		%	20	12/23/24	MH	70 - 130 %
% Bromofluorobenzene (20x)	98		%	20	12/23/24	MH	70 - 130 %
% Dibromofluoromethane (20x)	91		%	20	12/23/24	MH	70 - 130 %
% Toluene-d8 (20x)	97		%	20	12/23/24	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	12/22/24	HM	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	12/22/24	HM	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	12/22/24	HM	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	12/22/24	HM	SW8260D (OXY)
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	12	0.09	ug/L	1	12/27/24	MR	SW8270E
Acenaphthene	52	0.05	ug/L	1	12/27/24	MR	SW8270E
Acenaphthylene	1.3	0.28	ug/L	1	12/26/24	MR	SW8270E (SIM)
Anthracene	5.6	0.47	ug/L	1	12/26/24	MR	SW8270E (SIM)
Benz(a)anthracene	1.9	0.05	ug/L	1	12/26/24	MR	SW8270E (SIM)
Benzo(a)pyrene	1.3	0.19	ug/L	1	12/26/24	MR	SW8270E (SIM)
Benzo(b)fluoranthene	1.2	0.07	ug/L	1	12/26/24	MR	SW8270E (SIM)
Benzo(ghi)perylene	0.82	0.45	ug/L	1	12/26/24	MR	SW8270E (SIM)
Benzo(k)fluoranthene	1.1	0.28	ug/L	1	12/26/24	MR	SW8270E (SIM)
Chrysene	1.6	0.47	ug/L	1	12/26/24	MR	SW8270E (SIM)
Dibenz(a,h)anthracene	0.18	0.09	ug/L	1	12/26/24	MR	SW8270E (SIM)
Fluoranthene	8.8	0.47	ug/L	1	12/26/24	MR	SW8270E (SIM)
Fluorene	40	0.05	ug/L	1	12/27/24	MR	SW8270E

Project ID: BTP
Client ID: MW-01

Phoenix I.D.: CS32536

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	0.79	0.09	ug/L	1	12/26/24	MR	SW8270E (SIM)
Naphthalene	240	0.47	ug/L	5	12/27/24	MR	SW8270E
Phenanthrene	23	0.05	ug/L	1	12/27/24	MR	SW8270E
Pyrene	6.3	0.47	ug/L	1	12/26/24	MR	SW8270E (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	12/27/24	MR	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/27/24	MR	30 - 130 %
% Terphenyl-d14	56		%	1	12/27/24	MR	30 - 130 %
% 2-Fluorobiphenyl (5x)	67		%	5	12/27/24	MR	30 - 130 %
% Nitrobenzene-d5 (5x)	63		%	5	12/27/24	MR	30 - 130 %
% Terphenyl-d14 (5x)	56		%	5	12/27/24	MR	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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
December 31, 2024
Reviewed and Released by: Ethan Lee, Project Manager

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

Analysis Report

December 31, 2024

FOR: Attn: Darrick Jones
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	MS	12/19/24	13:15
Location Code:	WSP	Received by:	SR1	12/19/24	17:54
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCS32536
Phoenix ID: CS32537

Project ID: BTP
Client ID: MW-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Arsenic	< 0.004	0.004	mg/L	1	12/26/24	CPP	SW6010D
Barium	0.029	0.002	mg/L	1	12/26/24	CPP	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Chromium	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	12/20/24	ZT	SW7470A
Lead	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Selenium	< 0.010	0.010	mg/L	1	12/26/24	CPP	SW6010D
Total Cyanide	< 0.010	0.010	mg/L	1	12/24/24	K/A/G	SW9010C/SW9012B
Extraction of ETPH	Completed				12/23/24	Z/MQ	SW3510C/SW3520C
Mercury Digestion	Completed				12/20/24	AK/AK	SW7470A
Semi-Volatile Extraction	Completed				12/24/24	Z/K	SW3520C
Total Metals Digestion	Completed				12/24/24	AG	SW3010A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.071	mg/L	1	12/25/24	JRB	CTETPH
Identification	ND		mg/L	1	12/25/24	JRB	CTETPH
QA/QC Surrogates							
% Terphenyl (surr)	55		%	1	12/25/24	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D

Project ID: BTP
Client ID: MW-02

Phoenix I.D.: CS32537

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Acetone	ND	25	ug/L	1	12/23/24	MH	SW8260D
Acrylonitrile	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Benzene	ND	0.70	ug/L	1	12/23/24	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D

Project ID: BTP
Client ID: MW-02

Phoenix I.D.: CS32537

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
p-Isopropyltoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Styrene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	12/23/24	MH	SW8260D
Toluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	12/23/24	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	12/23/24	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	12/23/24	MH	70 - 130 %
% Toluene-d8	94		%	1	12/23/24	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	12/23/24	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Acenaphthene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Acenaphthylene	ND	0.30	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Anthracene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(a)pyrene	ND	0.20	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.07	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.30	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Chrysene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.10	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Fluoranthene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Fluorene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.10	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Naphthalene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Phenanthrene	ND	0.06	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Pyrene	ND	0.50	ug/L	1	12/26/24	KCA	SW8270E (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	67		%	1	12/26/24	KCA	30 - 130 %
% Nitrobenzene-d5	73		%	1	12/26/24	KCA	30 - 130 %
% Terphenyl-d14	72		%	1	12/26/24	KCA	30 - 130 %

Ver 1

Project ID: BTP
Client ID: MW-02

Phoenix I.D.: CS32537

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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
December 31, 2024
Reviewed and Released by: Ethan Lee, Project Manager

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

Analysis Report

December 31, 2024

FOR: Attn: Darrick Jones
WSP USA
4 Research Dr Suite 204
Shelton, CT 06484

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	MS	12/19/24	11:30
Location Code:	WSP	Received by:	SR1	12/19/24	17:54
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCS32536
Phoenix ID: CS32538

Project ID: BTP
Client ID: MW-04R

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Arsenic	< 0.004	0.004	mg/L	1	12/26/24	CPP	SW6010D
Barium	0.016	0.002	mg/L	1	12/26/24	CPP	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Chromium	0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	12/20/24	ZT	SW7470A
Lead	< 0.001	0.001	mg/L	1	12/26/24	CPP	SW6010D
Selenium	< 0.010	0.010	mg/L	1	12/26/24	CPP	SW6010D
Total Cyanide	< 0.010	0.010	mg/L	1	12/24/24	K/A/G	SW9010C/SW9012B
Extraction of ETPH	Completed				12/23/24	Z/MQ	SW3510C/SW3520C
Mercury Digestion	Completed				12/20/24	AK/AK	SW7470A
Semi-Volatile Extraction	Completed				12/24/24	Z/K	SW3520C
Total Metals Digestion	Completed				12/24/24	AG	SW3010A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	12/25/24	JRB	CTETPH
Identification	ND		mg/L	1	12/25/24	JRB	CTETPH
QA/QC Surrogates							
% Terphenyl (surr)	53		%	1	12/25/24	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D

Project ID: BTP
Client ID: MW-04R

Phoenix I.D.: CS32538

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	12/23/24	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Acetone	ND	25	ug/L	1	12/23/24	MH	SW8260D
Acrylonitrile	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Benzene	ND	0.70	ug/L	1	12/23/24	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	12/23/24	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D

Project ID: BTP
Client ID: MW-04R

Phoenix I.D.: CS32538

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
p-Isopropyltoluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Styrene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	12/23/24	MH	SW8260D
Toluene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	12/23/24	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	12/23/24	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	12/23/24	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	12/23/24	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	12/23/24	MH	70 - 130 %
% Dibromofluoromethane	87		%	1	12/23/24	MH	70 - 130 %
% Toluene-d8	96		%	1	12/23/24	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	12/23/24	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	12/23/24	MH	SW8260D (OXY)
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Acenaphthene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Acenaphthylene	ND	0.29	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Anthracene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.07	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.46	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.29	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Chrysene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.10	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Fluoranthene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Fluorene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.10	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Naphthalene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Phenanthrene	ND	0.06	ug/L	1	12/26/24	KCA	SW8270E (SIM)
Pyrene	ND	0.48	ug/L	1	12/26/24	KCA	SW8270E (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	12/26/24	KCA	30 - 130 %
% Nitrobenzene-d5	72		%	1	12/26/24	KCA	30 - 130 %
% Terphenyl-d14	64		%	1	12/26/24	KCA	30 - 130 %

Ver 1

Project ID: BTP
Client ID: MW-04R

Phoenix I.D.: CS32538

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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
December 31, 2024
Reviewed and Released by: Ethan Lee, Project Manager

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

QA/QC Report

December 31, 2024

QA/QC Data

SDG I.D.: GCS32536

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 763523 (mg/L), QC Sample No: CS31989 (CS32536, CS32537, CS32538)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	116			99.9			80 - 120	20
Comment:													
Additional Mercury Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range is 75-125% for aqueous and 80-120% for soils.													
QA/QC Batch 764108 (mg/L), QC Sample No: CS32662 (CS32536, CS32537, CS32538)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	<0.004	<0.004	NC	103	103	0.0	105			80 - 120	20
Barium	BRL	0.002	0.011	0.011	0	104	103	1.0	104			80 - 120	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	104	106	1.9	105			80 - 120	20
Chromium	BRL	0.001	<0.001	<0.001	NC	104	105	1.0	105			80 - 120	20
Lead	BRL	0.001	<0.001	<0.001	NC	104	104	0.0	103			80 - 120	20
Selenium	BRL	0.010	<0.010	<0.010	NC	101	102	1.0	101			80 - 120	20
Silver	BRL	0.001	<0.001	<0.001	NC	100	101	1.0	103			80 - 120	20
Comment:													
Additional Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range 75-125%.													

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

QA/QC Report

December 31, 2024

QA/QC Data

SDG I.D.: GCS32536

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 763917 (mg/L), QC Sample No: CS32537 (CS32536, CS32537, CS32538)														
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	100	103	3.0	111			90 - 110	20	m
Comment:														
Additional: MS acceptance range is 75-125%.														

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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

QA/QC Report

December 31, 2024

QA/QC Data

SDG I.D.: GCS32536

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 763916 (mg/L), QC Sample No: CS31672 (CS32536, CS32537, CS32538)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	100	96	4.1				60 - 120	20
% Terphenyl (surr)	69	%	73	72	1.4				50 - 150	20
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 764116 (ug/L), QC Sample No: CS33408 (CS32536, CS32537, CS32538)										
Semivolatiles by SIM, PAH - Ground Water										
2-Methylnaphthalene	ND	0.50	66	65	1.5				30 - 130	20
Acenaphthene	ND	0.50	77	74	4.0				30 - 130	20
Acenaphthylene	ND	0.30	69	67	2.9				30 - 130	20
Anthracene	ND	0.50	82	79	3.7				30 - 130	20
Benz(a)anthracene	ND	0.02	83	78	6.2				30 - 130	20
Benzo(a)pyrene	ND	0.02	79	76	3.9				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	77	72	6.7				30 - 130	20
Benzo(ghi)perylene	ND	0.48	84	79	6.1				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	82	79	3.7				30 - 130	20
Chrysene	ND	0.02	80	76	5.1				30 - 130	20
Dibenz(a,h)anthracene	ND	0.10	87	82	5.9				30 - 130	20
Fluoranthene	ND	0.50	79	76	3.9				30 - 130	20
Fluorene	ND	0.50	78	75	3.9				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	79	74	6.5				30 - 130	20
Naphthalene	ND	0.50	61	63	3.2				30 - 130	20
Phenanthrene	ND	0.06	74	71	4.1				30 - 130	20
Pyrene	ND	0.50	81	78	3.8				30 - 130	20
% 2-Fluorobiphenyl	64	%	69	65	6.0				30 - 130	20
% Nitrobenzene-d5	64	%	62	63	1.6				30 - 130	20
% Terphenyl-d14	72	%	72	70	2.8				30 - 130	20
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)										
QA/QC Batch 763881 (ug/L), QC Sample No: CS32688 (CS32536)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	89	90	1.1				70 - 130	20
1,1,1-Trichloroethane	ND	1.0	100	96	4.1				70 - 130	20
1,1,2,2-Tetrachloroethane	ND	0.50	90	99	9.5				70 - 130	20
1,1,2-Trichloroethane	ND	1.0	85	94	10.1				70 - 130	20
1,1-Dichloroethane	ND	1.0	104	102	1.9				70 - 130	20

QA/QC Data

SDG I.D.: GCS32536

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1-Dichloroethene	ND	1.0	100	95	5.1				70 - 130	20
1,1-Dichloropropene	ND	1.0	108	105	2.8				70 - 130	20
1,2,3-Trichlorobenzene	ND	1.0	86	93	7.8				70 - 130	20
1,2,3-Trichloropropane	ND	1.0	92	96	4.3				70 - 130	20
1,2,4-Trichlorobenzene	ND	1.0	90	92	2.2				70 - 130	20
1,2,4-Trimethylbenzene	ND	1.0	107	103	3.8				70 - 130	20
1,2-Dibromo-3-chloropropane	ND	1.0	82	93	12.6				70 - 130	20
1,2-Dibromoethane	ND	1.0	90	96	6.5				70 - 130	20
1,2-Dichlorobenzene	ND	1.0	96	97	1.0				70 - 130	20
1,2-Dichloroethane	ND	1.0	91	100	9.4				70 - 130	20
1,2-Dichloropropane	ND	1.0	96	99	3.1				70 - 130	20
1,3,5-Trimethylbenzene	ND	1.0	109	102	6.6				70 - 130	20
1,3-Dichlorobenzene	ND	1.0	99	97	2.0				70 - 130	20
1,3-Dichloropropane	ND	1.0	92	96	4.3				70 - 130	20
1,4-Dichlorobenzene	ND	1.0	100	97	3.0				70 - 130	20
1,4-dioxane	ND	100	93	91	2.2				70 - 130	20
2,2-Dichloropropane	ND	1.0	104	104	0.0				70 - 130	20
2-Chlorotoluene	ND	1.0	106	101	4.8				70 - 130	20
2-Hexanone	ND	5.0	79	90	13.0				70 - 130	20
2-Isopropyltoluene	ND	1.0	109	105	3.7				70 - 130	20
4-Chlorotoluene	ND	1.0	101	99	2.0				70 - 130	20
4-Methyl-2-pentanone	ND	5.0	72	86	17.7				70 - 130	20
Acetone	ND	5.0	72	82	13.0				70 - 130	20
Acrylonitrile	ND	5.0	71	81	13.2				70 - 130	20
Benzene	ND	0.70	105	105	0.0				70 - 130	20
Bromobenzene	ND	1.0	99	98	1.0				70 - 130	20
Bromochloromethane	ND	1.0	81	87	7.1				70 - 130	20
Bromodichloromethane	ND	0.50	90	96	6.5				70 - 130	20
Bromoform	ND	1.0	76	83	8.8				70 - 130	20
Bromomethane	ND	1.0	99	99	0.0				70 - 130	20
Carbon Disulfide	ND	1.0	104	100	3.9				70 - 130	20
Carbon tetrachloride	ND	1.0	94	92	2.2				70 - 130	20
Chlorobenzene	ND	1.0	98	96	2.1				70 - 130	20
Chloroethane	ND	1.0	117	112	4.4				70 - 130	20
Chloroform	ND	1.0	97	98	1.0				70 - 130	20
Chloromethane	ND	1.0	114	109	4.5				70 - 130	20
cis-1,2-Dichloroethene	ND	1.0	100	100	0.0				70 - 130	20
cis-1,3-Dichloropropene	ND	0.40	90	96	6.5				70 - 130	20
Dibromochloromethane	ND	0.50	88	94	6.6				70 - 130	20
Dibromomethane	ND	1.0	87	94	7.7				70 - 130	20
Dichlorodifluoromethane	ND	1.0	110	103	6.6				70 - 130	20
Ethyl ether	ND	1.0	80	91	12.9				70 - 130	20
Ethyl tert-butyl ether	ND	1.0	83	94	12.4				70 - 130	20
Hexachlorobutadiene	ND	0.40	90	89	1.1				70 - 130	20
Isopropylbenzene	ND	1.0	111	103	7.5				70 - 130	20
m&p-Xylene	ND	1.0	103	97	6.0				70 - 130	20
Methyl ethyl ketone	ND	5.0	74	86	15.0				70 - 130	20
Methyl t-butyl ether (MTBE)	ND	1.0	78	88	12.0				70 - 130	20
Methylene chloride	ND	1.0	91	94	3.2				70 - 130	20
n-Butylbenzene	ND	1.0	110	105	4.7				70 - 130	20
n-Propylbenzene	ND	1.0	109	102	6.6				70 - 130	20
o-Xylene	ND	1.0	101	98	3.0				70 - 130	20
p-Isopropyltoluene	ND	1.0	107	102	4.8				70 - 130	20

QA/QC Data

SDG I.D.: GCS32536

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
sec-Butylbenzene	ND	1.0	108	102	5.7				70 - 130	20	
Styrene	ND	1.0	97	96	1.0				70 - 130	20	
tert-amyl methyl ether	ND	1.0	79	93	16.3				70 - 130	20	
tert-Butylbenzene	ND	1.0	108	102	5.7				70 - 130	20	
Tetrachloroethene	ND	1.0	99	96	3.1				70 - 130	20	
Tetrahydrofuran (THF)	ND	2.5	74	91	20.6				70 - 130	20	r
Toluene	ND	1.0	99	98	1.0				70 - 130	20	
trans-1,2-Dichloroethene	ND	1.0	102	99	3.0				70 - 130	20	
trans-1,3-Dichloropropene	ND	0.40	84	92	9.1				70 - 130	20	
trans-1,4-dichloro-2-butene	ND	5.0	83	91	9.2				70 - 130	20	
Trichloroethene	ND	1.0	101	97	4.0				70 - 130	20	
Trichlorofluoromethane	ND	1.0	100	94	6.2				70 - 130	20	
Trichlorotrifluoroethane	ND	1.0	90	87	3.4				70 - 130	20	
Vinyl chloride	ND	1.0	109	103	5.7				70 - 130	20	
% 1,2-dichlorobenzene-d4	93	%	96	99	3.1				70 - 130	20	
% Bromofluorobenzene	99	%	97	100	3.0				70 - 130	20	
% Dibromofluoromethane	89	%	81	86	6.0				70 - 130	20	
% Toluene-d8	97	%	98	101	3.0				70 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 764378 (ug/L), QC Sample No: CS32769 (CS32537, CS32538)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	93	100	7.3				70 - 130	20	
1,1,1-Trichloroethane	ND	1.0	93	95	2.1				70 - 130	20	
1,1,2,2-Tetrachloroethane	ND	0.50	102	110	7.5				70 - 130	20	
1,1,2-Trichloroethane	ND	1.0	89	104	15.5				70 - 130	20	
1,1-Dichloroethane	ND	1.0	98	102	4.0				70 - 130	20	
1,1-Dichloroethene	ND	1.0	96	95	1.0				70 - 130	20	
1,1-Dichloropropene	ND	1.0	103	111	7.5				70 - 130	20	
1,2,3-Trichlorobenzene	ND	1.0	97	105	7.9				70 - 130	20	
1,2,3-Trichloropropane	ND	1.0	100	110	9.5				70 - 130	20	
1,2,4-Trichlorobenzene	ND	1.0	100	106	5.8				70 - 130	20	
1,2,4-Trimethylbenzene	ND	1.0	109	111	1.8				70 - 130	20	
1,2-Dibromo-3-chloropropane	ND	1.0	100	104	3.9				70 - 130	20	
1,2-Dibromoethane	ND	1.0	98	106	7.8				70 - 130	20	
1,2-Dichlorobenzene	ND	1.0	102	108	5.7				70 - 130	20	
1,2-Dichloroethane	ND	1.0	94	107	12.9				70 - 130	20	
1,2-Dichloropropane	ND	1.0	94	107	12.9				70 - 130	20	
1,3,5-Trimethylbenzene	ND	1.0	109	111	1.8				70 - 130	20	
1,3-Dichlorobenzene	ND	1.0	103	107	3.8				70 - 130	20	
1,3-Dichloropropane	ND	1.0	99	107	7.8				70 - 130	20	
1,4-Dichlorobenzene	ND	1.0	104	108	3.8				70 - 130	20	
1,4-dioxane	ND	100	99	104	4.9				70 - 130	20	
2,2-Dichloropropane	ND	1.0	100	100	0.0				70 - 130	20	
2-Chlorotoluene	ND	1.0	109	108	0.9				70 - 130	20	
2-Hexanone	ND	5.0	90	104	14.4				70 - 130	20	
2-Isopropyltoluene	ND	1.0	110	113	2.7				70 - 130	20	
4-Chlorotoluene	ND	1.0	104	105	1.0				70 - 130	20	
4-Methyl-2-pentanone	ND	5.0	79	101	24.4				70 - 130	20	r
Acetone	ND	5.0	83	90	8.1				70 - 130	20	

QA/QC Data

SDG I.D.: GCS32536

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Acrylonitrile	ND	5.0	80	91	12.9				70 - 130	20
Benzene	ND	0.70	101	110	8.5				70 - 130	20
Bromobenzene	ND	1.0	104	107	2.8				70 - 130	20
Bromochloromethane	ND	1.0	86	94	8.9				70 - 130	20
Bromodichloromethane	ND	0.50	90	102	12.5				70 - 130	20
Bromoform	ND	1.0	79	89	11.9				70 - 130	20
Bromomethane	ND	1.0	90	97	7.5				70 - 130	20
Carbon Disulfide	ND	1.0	98	99	1.0				70 - 130	20
Carbon tetrachloride	ND	1.0	92	92	0.0				70 - 130	20
Chlorobenzene	ND	1.0	100	103	3.0				70 - 130	20
Chloroethane	ND	1.0	111	112	0.9				70 - 130	20
Chloroform	ND	1.0	94	98	4.2				70 - 130	20
Chloromethane	ND	1.0	107	107	0.0				70 - 130	20
cis-1,2-Dichloroethene	ND	1.0	99	103	4.0				70 - 130	20
cis-1,3-Dichloropropene	ND	0.40	89	102	13.6				70 - 130	20
Dibromochloromethane	ND	0.50	93	102	9.2				70 - 130	20
Dibromomethane	ND	1.0	90	105	15.4				70 - 130	20
Dichlorodifluoromethane	ND	1.0	109	110	0.9				70 - 130	20
Ethyl ether	ND	1.0	86	98	13.0				70 - 130	20
Ethyl tert-butyl ether	ND	1.0	89	97	8.6				70 - 130	20
Ethylbenzene	ND	1.0	103	104	1.0				70 - 130	20
Hexachlorobutadiene	ND	0.40	95	101	6.1				70 - 130	20
Isopropylbenzene	ND	1.0	110	110	0.0				70 - 130	20
m&p-Xylene	ND	1.0	103	104	1.0				70 - 130	20
Methyl ethyl ketone	ND	5.0	78	90	14.3				70 - 130	20
Methyl t-butyl ether (MTBE)	ND	1.0	84	94	11.2				70 - 130	20
Methylene chloride	ND	1.0	91	97	6.4				70 - 130	20
Naphthalene	ND	1.0	102	111	8.5				70 - 130	20
n-Butylbenzene	ND	1.0	111	115	3.5				70 - 130	20
n-Propylbenzene	ND	1.0	111	109	1.8				70 - 130	20
o-Xylene	ND	1.0	103	105	1.9				70 - 130	20
p-Isopropyltoluene	ND	1.0	108	112	3.6				70 - 130	20
sec-Butylbenzene	ND	1.0	110	112	1.8				70 - 130	20
Styrene	ND	1.0	102	106	3.8				70 - 130	20
tert-amyl methyl ether	ND	1.0	87	103	16.8				70 - 130	20
tert-Butylbenzene	ND	1.0	109	109	0.0				70 - 130	20
Tetrachloroethene	ND	1.0	95	99	4.1				70 - 130	20
Tetrahydrofuran (THF)	ND	2.5	86	97	12.0				70 - 130	20
Toluene	ND	1.0	95	103	8.1				70 - 130	20
trans-1,2-Dichloroethene	ND	1.0	97	97	0.0				70 - 130	20
trans-1,3-Dichloropropene	ND	0.40	86	99	14.1				70 - 130	20
trans-1,4-dichloro-2-butene	ND	5.0	83	91	9.2				70 - 130	20
Trichloroethene	ND	1.0	100	101	1.0				70 - 130	20
Trichlorofluoromethane	ND	1.0	97	99	2.0				70 - 130	20
Trichlorotrifluoroethane	ND	1.0	91	94	3.2				70 - 130	20
Vinyl chloride	ND	1.0	102	103	1.0				70 - 130	20
% 1,2-dichlorobenzene-d4	94	%	98	100	2.0				70 - 130	20
% Bromofluorobenzene	99	%	100	100	0.0				70 - 130	20
% Dibromofluoromethane	90	%	85	88	3.5				70 - 130	20
% Toluene-d8	95	%	95	100	5.1				70 - 130	20

QA/QC Data

SDG I.D.: GCS32536

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.										
QA/QC Batch 764364 (ug/L), QC Sample No: CS32847 (CS32536 (5X, 20X))										
Volatiles - Ground Water										
Ethylbenzene	ND	1.0	101	103	2.0				70 - 130	20
Naphthalene	ND	1.0	92	92	0.0				70 - 130	20
% 1,2-dichlorobenzene-d4	92	%	98	97	1.0				70 - 130	20
% Bromofluorobenzene	96	%	99	99	0.0				70 - 130	20
% Dibromofluoromethane	85	%	85	82	3.6				70 - 130	20
% Toluene-d8	87	%	94	93	1.1				70 - 130	20
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.										

r = This parameter is outside laboratory RPD specified recovery limits.

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
(ISO) - Isotope Dilution

Phyllis Shiller, Laboratory Director
December 31, 2024

Tuesday, December 31, 2024

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GCS32536 - WSP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CS32536	$8100CTSIMR	Benzo(ghi)perylene	CT / RSR GWPC (ug/l) / APS Organics	0.82	0.45	0.48	0.48	ug/L
CS32536	$8100CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.79	0.09	0.1	0.1	ug/L
CS32536	$8100CTSIMR	Dibenz(a,h)anthracene	CT / RSR GWPC (ug/l) / APS Organics	0.18	0.09	0.1	0.1	ug/L
CS32536	$8100CTSIMR	Benzo(k)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	1.1	0.28	0.5	0.5	ug/L
CS32536	$8100CTSIMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	1.2	0.07	0.08	0.08	ug/L
CS32536	$8100CTSIMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	1.3	0.19	0.2	0.2	ug/L
CS32536	$8100CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	1.9	0.05	0.06	0.06	ug/L
CS32536	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / APS Organics	23	0.05	14	14	ug/L
CS32536	$8100CTSIMR	Chrysene	CT / RSR SWPC (ug/l) / APS Organics	1.6	0.47	0.54	0.54	ug/L
CS32536	$8100CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	0.79	0.09	0.54	0.54	ug/L
CS32536	$8100CTSIMR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	240	0.47	210	210	ug/L
CS32536	$8100CTSIMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	1.3	0.19	0.3	0.3	ug/L
CS32536	$8100CTSIMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	1.2	0.07	0.3	0.3	ug/L
CS32536	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	23	0.05	14	14	ug/L
CS32536	$8100CTSIMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	1.9	0.05	0.3	0.3	ug/L
CS32536	$8100CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.3	0.28	0.3	0.3	ug/L
CS32536	$8100CTSIMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	1.1	0.28	0.3	0.3	ug/L
CS32536	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CS32536	$8260GWR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	440	20	280	280	ug/L
CS32536	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CS32536	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	16	0.70	1	1	ug/L
CS32536	$8260GWR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	440	20	210	210	ug/L
CS32536	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	1.6	0.076	0.25	0.25	mg/L
CS32536	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	1.6	0.076	0.25	0.25	mg/L
CS32536	$RCPADD-WM	1,4-Dioxane	CT / RSR GWPC (ug/l) / APS Organics	ND	40	3	3	ug/L
CS32536	AS-WM	Arsenic	CT / RSR SWPC (ug/l) / Inorganics	0.008	0.004	0.004	0.004	mg/L
CS32536	PB-WM	Lead	CT / RSR GWPC (ug/l) / Inorganics	0.060	0.001	0.015	0.015	mg/L
CS32536	PB-WM	Lead	CT / RSR SWPC (ug/l) / Inorganics	0.060	0.001	0.013	0.013	mg/L
CS32537	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CS32537	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CS32537	$RCPADD-WM	1,4-Dioxane	CT / RSR GWPC (ug/l) / APS Organics	ND	40	3	3	ug/L
CS32538	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CS32538	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CS32538	$RCPADD-WM	1,4-Dioxane	CT / RSR GWPC (ug/l) / APS Organics	ND	40	3	3	ug/L

Bureau of Water Protection and Land Reuse
Remediation Division

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name Phoenix Environmental Labs, Inc.	Client Name WSP USA
Project Location BTP	Project No.
Sampling Date(s) 12/19/2024	Laboratory Sample ID(s): CS32536-CS32538

LIST RCP METHODS USED (e.g., 8260,8270, etc.) 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method-specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (≤6° C)? *If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.*	☑ Yes ☐ No ☐ NA
4	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: Cyanide Narration, VOA Narration.	☐ Yes ☑ No
5	Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5a	Were these reporting limits / limits of quantitation met?	☐ Yes ☑ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs?	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

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.

Authorized Signature: Ethan Lee Position: Project Manager

Printed Name: Ethan Lee Date: Tuesday, December 31, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

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

RCP Certification Report

December 31, 2024

SDG I.D.: GCS32536

SDG Comments

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

8270 Semi-volatile Organics:
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

Volatile 8260 analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, these compounds are analyzed by GC/ECD to achieve this criteria.

Volatile 8260 analysis:
1,4-Dioxane does not meet the GWP. This compound is analyzed by method 522 or 8270SIM to achieve this criteria.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 763917 (Samples: CS32536, CS32537, CS32538): -----

The MS and/or the MSD recovery is above the upper range, therefore a slight high bias is possible. (Total Cyanide)

Instrument:

LACHAT 12/24/24-1 Christine Luckhoo, Chemist 12/24/24

CS32536 , CS32537 , CS32538

The samples were distilled in accordance with the method.
The initial calibration met criteria.
The calibration check standards (ICV,CCV) met criteria.
The initial and continuing calibration blanks (ICB,CCB) met criteria.

The method blank, laboratory control sample (LCS), and matrix spike (MS) were distilled with the samples.

QC (Site Specific):

Batch 763917 (CS32537)

CS32536, CS32537, CS32538

All LCS recoveries were within 90 - 110 with the following exceptions: None.
All LCSD recoveries were within 90 - 110 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
All MS recoveries were within 90 - 110 with the following exceptions: Total Cyanide(111%)
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional: MS acceptance range is 75-125%.

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

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RCP Certification Report

December 31, 2024

SDG I.D.: GCS32536

ETPH Narration

Instrument:

AU-XL2 12/24/24-1 Jeff Bucko, Chemist 12/24/24

CS32536 (1X), CS32537 (1X), CS32538 (1X)

The initial calibration (ETPHO15I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D24A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 763916 (CS31672)

CS32536, CS32537, CS32538

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 12/20/24 08:06 Zade-Anne Taylor, Chemist 12/20/24

CS32536, CS32537, CS32538

The initial calibration met criteria and the linear range is defined daily by the calibration range.
The Low-Level Calibration Verification (LLCV) met criteria.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Initial Calibration Blank (ICB) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following Continuing Calibration Blank (CCB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 763523 (CS31989)

CS32536, CS32537, CS32538

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range is 75-125% for aqueous and 80-120% for soils.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS-4 12/26/24 11:14 Cindy Pearce, Chemist 12/26/24

CS32536, CS32537, CS32538

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Certification Report

December 31, 2024

SDG I.D.: GCS32536

ICP Metals Narration

The initial calibration met criteria and the linear range is defined daily by the calibration range.
The Low-Level Calibration Verification (LLCV) met criteria.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Initial Calibration Blank (ICB) compounds did not meet criteria: None.
The following Spectral Interference Check compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following Continuing Calibration Blank (CCB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 764108 (CS32662)

CS32536, CS32537, CS32538

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All LCSD recoveries were within 80 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range 75-125%.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM22 12/27/24-1 Matt Richard, Chemist 12/27/24

CS32536 (1X, 5X)

Initial Calibration Evaluation (CHEM22/22_SVFULL_1220):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

Continuing Calibration Verification (CHEM22/1227_03-22_SVFULL_1220):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

QC (Batch Specific):

Batch 764116 (CS33408)

CS32536, CS32537, CS32538

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

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RCP Certification Report

December 31, 2024

SDG I.D.: GCS32536

SVOA Narration

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM33 12/26/24-1 Adam Werner, Chemist 12/26/24

CS32536 (1X), CS32537 (1X), CS32538 (1X)

Initial Calibration Evaluation (CHEM33/33_PAHSIM_1126):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

Continuing Calibration Verification (CHEM33/1226_06-33_PAHSIM_1126):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

QC (Batch Specific):

Batch 764116 (CS33408)

CS32536, CS32537, CS32538

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 763881 (Samples: CS32536): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Tetrahydrofuran (THF))

QC Batch 764378 (Samples: CS32537, CS32538): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4-Methyl-2-pentanone)

Instrument:

CHEM17 12/22/24-1 Harry Mullin, Chemist 12/22/24

CS32536 (1X)

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RCP Certification Report

December 31, 2024

SDG I.D.: GCS32536

VOA Narration

Chem 17 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.
EPA method 8260D Table 4 supports this approach.

Initial Calibration Evaluation (CHEM17/VT-121624):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acrylonitrile 21% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.189 (0.2), 1,2-Dibromoethane 0.184 (0.2), Bromoform 0.094 (0.1)

Continuing Calibration Verification (CHEM17/1222_02-VT-121624):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 1,4-Dioxane 21%L (20%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.182 (0.2), 1,2-Dibromoethane 0.179 (0.2), Bromoform 0.079 (0.1), Tetrahydrofuran (THF) 0.049 (0.05)

CHEM17 12/23/24-1 Michael Hahn, Chemist 12/23/24

CS32536 (5X, 20X)

Chem 17 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.
EPA method 8260D Table 4 supports this approach.

Initial Calibration Evaluation (CHEM17/VT-121624):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

Continuing Calibration Verification (CHEM17/1223_02-VT-121624):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
95% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

CHEM17 12/23/24-2 Michael Hahn, Chemist 12/23/24

CS32537 (1X), CS32538 (1X)

Chem 17 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.
EPA method 8260D Table 4 supports this approach.

Initial Calibration Evaluation (CHEM17/VT-121624):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acrylonitrile 21% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.189 (0.2), 1,2-Dibromoethane 0.184 (0.2), Bromoform 0.094 (0.1)

Continuing Calibration Verification (CHEM17/1223_28-VT-121624):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

December 31, 2024

SDG I.D.: GCS32536

VOA Narration

80% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 1,1,2-Trichloroethane 23%L (20%), 4-Methyl-2-pentanone 30%L (20%), Acetone 24%L (20%), Acrylonitrile 24%L (20%), Bromochloromethane 22%L (20%), Bromodichloromethane 22%L (20%), Bromoform 29%L (20%), Bromomethane 26%L (20%), cis-1,3-Dichloropropene 22%L (20%), Dibromomethane 22%L (20%), Methyl ethyl ketone 31%L (20%), Methyl t-butyl ether (MTBE) 22%L (20%), tert amyl methyl ether 24%L (20%), Tetrahydrofuran (THF) 22%L (20%), trans-1,3-Dichloropropene 26%L (20%), trans-1,4-dichloro-2-butene 26%L (20%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.145 (0.2), 1,2-Dibromoethane 0.168 (0.2), Bromoform 0.067 (0.1), Dibromochloromethane 0.193 (0.2), Tetrahydrofuran (THF) 0.043 (0.05), trans-1,3-Dichloropropene 0.263 (0.3)

QC (Batch Specific):

Batch 763881 (CS32688) CHEM17 12/22/2024-1

CS32536(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: Tetrahydrofuran (THF)(20.6%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 764364 (CS32847) CHEM17 12/23/2024-1

CS32536(5X, 20X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 764378 (CS32769) CHEM17 12/23/2024-2

CS32537(1X), CS32538(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: 4-Methyl-2-pentanone(24.4%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.4C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐
Temp 2.4 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: DARRICK.JONES@WSP.com

Customer: WSP
Address: 6 RESEARCH DR STE 260 SHELTON CT 06484

Project: BTP
Report to: DARRICK JONES
Invoice to: DARRICK JONES
Quote #

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Nulan Sigard Date: 12/19/24

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	*MS/MSD (May be billable at analysis unit rate)	VOCs 8260	CT ETPH	PAHs 8270	RCRA 8 Metals	Total Cyanide	GL Amber 8 oz. [ ] w/H_3PO_4 [ ] $NAHSO_4$	Soil VOA Vials [ ] methanol [ ] H_2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ]	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H_2SO_4 [ ] 250ml [ ] 500ml	PL HNO_3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
32536	MW-01	GW	12/19/24	1215		X	X	X	X	X					3	3			1	1		
32537	MW-02	↓	↓	1315		X	X	X	X	X					3	3			1	1		
32538	MW-04R	↓	↓	1130		X	X	X	X	X					3	3			1	1		

Relinquished by:	Accepted by:	Date:	Time:
Nulan Sigard		12/19/24	1624
Attrim		12-19-24	17:54

Comments, Special Requirements or Regulations:

Turnaround Time:
☐ 1 Day* ☒ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

RI
☐ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

CT
☒ RCP Cert
☒ GWPC
☒ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

MA
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3 ☐ S-1 Calc.
☐ S-1
☐ S-2 ☐ C
☐ S-3
☐ SW Protection

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

*** SURCHARGES MAY APPLY**

State where samples were collected: CT

*** SURCHARGE APPLIES**

Form PEL-126 Rev. 9/23