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TASK 210
SUBSURFACE SITE INVESTIGATION

REPLACEMENT OF CULVERT AT MP 65.80, NEW HAVEN MAINLINE OVER UNNAMED STREAM
Milford, Connecticut

Prepared For:

State of Connecticut
Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131

Prepared By:

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CT DOT Assignment No. 416-5425
CT DOT Project No. 0301-0175
HRP #: CTD4034.21

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Replacement of Culvert at MP 65.80, New Haven Mainline over Unnamed Stream
Milford, Connecticut

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Report Date: 8/28/2017

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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (CT DOT), HRP Associates, Inc. (HRP) has completed a Task 210 (Subsurface Site Investigation) in association with planned railway culvert improvements at MP 65.80, New Haven Mainline, Milford, CT. The attached Figure 1 depicts the site location topographically.

The purpose of this Task 210 was to verify the presence or absence of contamination in soils that will be disrupted during the course of construction activities as well as the location and magnitude of any contaminated soil found. The Task 210 also determined whether impacted groundwater would be encountered within the construction zone. These investigation results were used to assess what subsurface media, if any, would require special handling and/or disposal practices.

All field investigation and sampling methods were conducted as specified in the Task 210 Subsurface Site Investigation Work Plan finalized on July 17, 2017.

2.0 SITE DESCRIPTION

CT DOT is currently planning railway culvert improvements at MP 65.80, New Haven Mainline, Milford, CT. The project is located in the Metro North Railroad (MNRR) right-of-way between catenary structures 951 and 952, in an area adjacent to 95 Eastern Steel Road on the northwestern side and adjacent to 206 Pepe's Farm Road on the southeastern side.

A Task 210 Work Plan was prepared for the site in July 2017 and outlined the proposed Task 210 activities. This report details the implementation of the Task 210 work.

3.0 LOCAL ENVIRONMENT AND RECEPTORS

3.1 Geology

Surficial geology of the reconstruction zone and surrounding area is mapped as thin till. Thin till is described as well-sorted, heavily-compacted rock particles of all sizes that were deposited during glacial retreat (Surficial Materials Map of Connecticut by Stone, Schafer, London and Thompson, 1992).

Bedrock beneath the project corridor is mapped as Allingtown Metavolcanics. Allingtown Metavolcanics is described as green, fine-grained massive greenstone.

3.2 Hydrogeology

The groundwater classification for the subject parcel is mapped as "GB." A "GB" groundwater classification is defined as follows:

"Groundwater within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is typically available. Such groundwater may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts."

The subject parcel is located in the Indian River drainage basin. The Indian River is located approximately 0.6 miles west of the site and is classified as an "SB" surface water body. Class "SB" surface water body designated uses include:

- Marine fish;
- Shellfish and wildlife habitat;
- Shellfish harvesting for transfer to approved areas for purification prior to human consumption;
- Recreation; and
- Industrial and other legitimate uses including navigation.

Discharges are restricted to:

- Discharges from public or private drinking water treatment systems;
- Dredging and dewatering;
- Emergency and clean water discharges;
- Cooling waters;
- Discharges from industrial and municipal wastewater treatment facilities (providing Best Available Treatment and Best Management Practices are applied); and
- Other discharges subject to the provisions of the Statute.

Groundwater was encountered at approximately 3.5 feet below grade (fbg) during Task 210 activities. It is noted that standing water was present at some locations around the project limits.

4.0 PRELIMINARY ACTIVITIES

4.1 Sample Location Marking and Utility Clearance

Prior to the commencement of drilling activities, HRP personnel located and marked proposed soil boring locations in the field. Upon completion, Connecticut Call Before You Dig Services (CBYD) was contacted by the HRP and the drilling subcontractor to arrange for a mark-out of public utility lines. As an additional precaution, CorBuilt LLC of Canterbury, Connecticut (CorBuilt) was contracted to clear proposed soil boring locations using ground penetrating radar and electromagnetic induction technologies. Each boring location was approved prior to its installation.

Note: A telephone line monument was observed on the Pepe's Farm Road side of the site in the vicinity of soil boring SB-8 (See Figure 2). CorBuilt located an underground anomaly in this area which was presumed to be the buried telephone line.

5.0 SOIL INVESTIGATION METHODS

5.1 Field Screening

Visual Screening
Soil samples collected as part of this investigation were visually inspected for evidence of contamination (i.e., color, sheen, etc.). Any staining or unusual odors observed from the samples were recorded on the appropriate boring log. Copies of boring logs are included as Appendix A.

Photo-ionization Detector (PID)
All soil samples were also field-screened for Volatile Organic Compounds (VOCs) using a PID in accordance with HRP Standard Operating Procedures (SOPs). A small portion of each sample was placed into a sealable plastic bag and allowed to equilibrate with the surrounding temperature. The bag's headspace was then screened and the results were recorded on the associated boring log.

5.2 Soil Boring Installation and Sample Collection

A total of nine (9) soil borings (SB-1 to SB-9) were installed using hand methodologies on August 1, 2017. Six (6) borings were installed in the vicinity of the proposed culvert replacement work area and three (3) borings were installed along the proposed access road. Borings in the vicinity of the proposed culvert replacement work area were installed near the edge of standing water, as close to the proposed work area as possible. The drilling work was performed by Complete Environmental Services, LLC of Bethany, Connecticut (CES) under HRP supervision. Borings were installed using a hand-held slam-bar to advance a 4-foot long stainless steel sampling tube equipped with disposable acetate liners. Final depths ranged from approximately 2 to 4 fbg, with 2-foot samples being located along the proposed access road and 4-foot samples being located in the vicinity of the proposed culvert replacement work area.

Soil intervals were collected in a continuous fashion from each boring and were inspected for evidence of contamination. Soil descriptions, lab sample intervals, and any other relevant observations were recorded on the soil boring logs.

Laboratory submittal samples were chosen based on field observations and anticipated construction project disturbance depths. The soil samples were placed in laboratory-provided and preserved glassware, stored on ice in coolers, and submitted under proper chain-of-custody to Phoenix Environmental Laboratories of Manchester, Connecticut (Phoenix), a CT-certified laboratory, for analysis of the following:

- VOCs via EPA Method 8260;
- Semi-Volatile Organic Compounds (SVOCs) via EPA Method 8270;
- Extractable Total Petroleum Hydrocarbons (ETPH) via CT ETPH Methodology;
- Resource Conservation Recovery Act (RCRA)-8 metals via mass and Synthetic Precipitation Leaching Procedure (SPLP) (methodology varies by metal); and
- Poly-chlorinated biphenyls (PCBs) via EPA Method 8082.

Field sampling protocols were performed in accordance with HRPs Standard Operating Procedures (SOPs) and "*Connecticut Department of Environmental Protection (CTDEP) Guidance for Collecting and Preserving Soil and Sediment Samples for Laboratory Determination of Volatile Organic Compounds*" dated March 1, 2006.

Laboratory samples are identified in a fashion to identify the boring location and the depth in feet below grade where the sample was collected. For example, sample SB-1 (0-2') was collected at soil boring location SB-1 as shown on Figure 2 at a depth of 0-2 fbg.

6.0 GROUNDWATER INVESTIGATION METHODS

6.1 Temporary Monitoring Well Installation

One (1) temporary groundwater monitoring well (MW-1) was installed at soil boring SB-3 to assess groundwater conditions within the project limits. The temporary monitoring well location is identified on Figure 2.

Temporary monitoring well MW-1 was constructed using a section of 1-inch poly-vinyl chloride (PVC) well screen placed into the open borehole.

6.2 Temporary Monitoring Well Sampling

Groundwater sampling was performed using grab-collection techniques employing a peristaltic pump and dedicated plastic tubing.

The groundwater sample set was placed in laboratory-provided and preserved glassware, stored on ice in coolers, and submitted under proper chain-of-custody to Phoenix for analysis of the following:

- VOCs via EPA Method 8260;
- SVOCs via EPA Method 8270;
- ETPH via CT ETPH Methodology;
- RCRA-8 Metals via mass and dissolved analysis; and
- PCBs via EPA Method 8082.

7.0 LABORATORY DATA RESULTS

7.1 Regulatory Criteria

Soil sample analytical results were compared to the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs). The RSRs (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-113q-1) were developed (adopted January 1996, amended 2013) with the purpose to define minimum remediation performance standards, specific numeric cleanup criteria, and a process for establishing an alternative site-specific numerical standards for certain sites, upon approval by the CT DEEP. The Remediation Standard Regulations apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CT DEEP Commissioner.

Although the site is not an "establishment" nor is it associated with the CT DEEP Voluntary Remediation program, CT DEEP RSR numeric criteria were used in evaluation of environmental data for comparative purposes in order to develop proper soil management procedures. Where select compounds do not have established numeric criteria in the RSRs, results were compared to numeric criteria referenced in the CTDEEP Technical Support Document: Recommended Numeric Criteria for Additional Polluting Substances (APS) and Certain Alternative Criteria (12/10/2015, Rev. 1/27/2017). Additionally, groundwater results were compared to discharge limits listed in the CTDEEP General Permits for Groundwater Remediation Wastewater to a Sanitary Sewer and Groundwater Remediation Wastewater directly to a Surface Water. The applicable RSR standards are as follows:

Soil
- Residential Direct Exposure Criteria (RDEC)
- GB Pollutant Mobility Criteria (GB PMC)

Groundwater
- Surface Water Protection Criteria (SWPC)
- Residential Groundwater Volatilization Criteria (Res GWVC)

7.2 Data Evaluation

7.2.1 Soil Sample Analytical Results

Data from soil samples collected during the Task 210 investigation are presented in Table 1 and the laboratory analytical report is provided in Appendix B. The following contaminants of concern were identified via lab analysis:

VOCs
Low-level concentrations of toluene were detected below applicable RSR standards in SB-2 (0-2') and low-level concentrations of 2-Butanone (MEK) were detected below applicable RSR standards in SB-2 (0-2') and SB-4 (0-2'). VOCs were not reported above the laboratory minimum detection limit in any of the remaining soil samples.

SVOCs
Select SVOCs were detected in exceedance of the applicable RSR standards in SB-1 (0-2'), SB-2 (0-2'), SB-3 (0-2'), SB-4 (0-2'), SB-5 (0-2'), and SB-7 (0-2'). Additionally, low-level concentrations of SVOCs were detected below applicable RSR standards in SB-6 (0-2'), SB-8 (0-2') and SB-9 (0-2').

ETPH
ETPH was detected in exceedance of the applicable RSR standards in SB-2 (0-2'), SB-3 (0-2'), SB-4 (0-2'), and SB-5 (0-2'). Low-level concentrations of ETPH were detected below applicable RSR standards in SB-1 (0-2') and SB-6 (0-2'). ETPH was not reported above the laboratory minimum detection limit in any of the remaining soil samples.

RCRA-8 Metals
Total arsenic was detected above the applicable RSR standards in SB-4 (0-2'), SB-5 (0-2'), SB-6 (0-2'), and SB-7 (0-2'). Low-level concentrations of select total RCRA-8 metals were detected below applicable RSR standards in all soil samples submitted for analysis.

Low-level concentrations of SPLP Arsenic were detected below applicable RSR standards in SB-2 (0-2'), SB-3 (0-2'), SB-4 (0-2'), SB-7 (0-2;), and SB-8 (0-2'). Low-level concentrations of SPLP Barium were detected below applicable RSR standards in SB-1 (0-2'), SB-2 (0-2'), SB-3 (0-2'), SB-7 (0-2'), and SB-8 (0-2'). SPLP RCRA-8 metals were not reported above the laboratory minimum detection limit in any of the remaining soil samples.

PCBs
PCBs were not detected in any of the soil samples submitted for analysis.

7.2.2 Groundwater Sample Analytical Results

Data from groundwater samples collected from the temporary monitoring well are presented in Table 2 and the laboratory analytical report is provided in Appendix B. The following contaminants of concern were identified via lab analysis:

VOCs
VOCs were not detected above the laboratory minimum detection limit.

SVOCs
Low-level concentrations of SVOCs were detected below applicable RSR standards.

ETPH
ETPH was not detected above the laboratory minimum detection limit.

RCRA-8 Metals
Total arsenic and lead were detected in exceedance of the applicable RSR standards. Additional low-level concentrations of total metals were detected below applicable RSR standards. Dissolved arsenic was detected in exceedance of the RSR standards. Additional low-level concentrations of dissolved metals were detected below applicable RSR standards.

PCBs
PCBs were not detected in the groundwater sample above the laboratory minimum detection limit.

7.2.3 Quality Assurance/Quality Control (QA/QC)

Quality assurance and quality control (QA/QC) VOC trip blank (TB) samples were collected during sampling activities to assess potential data interference from storage techniques. Trip blank samples were included for both soil and groundwater. The soil trip blanks included a low and high level sample. The trip blank was used to assess proper handling/storage techniques and was analyzed for VOCs. All sampling equipment was either dedicated to a specific sample or decontaminated between each use.

The trip blanks were prepared prior to job commencement and were stored with the samples until subsequent delivery to the laboratory.

All samples collected in the field were handled in a manner that preserved the integrity of their chemistry and placed in an ice-filled cooler immediately following collection until delivery to the laboratory. Chain-of-Custody (COC) forms were completed and accompanied the sample group as a legal record of possession. HRP requested all analyses to be performed under the Connecticut Reasonable Confidence Protocols (RCP). The RCP are established protocols that analytical laboratories must follow to assure acceptable data quality.

QA/QC Results
No contaminants of concern were detected in the trip blank samples thus indicating proper sampling handling techniques were employed. Additionally, HRP reviewed the data results and QA/QC documentation including the lab report case narratives. The following was noted:

- The laboratory control sample recovery for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Benzoic Acid, and Benzidine was below method criteria therefore a low bias is possible. Since the particular compounds are not considered primary compounds within those parameter groups, it was determined that a low bias would not affect data quality.

- In certain samples, laboratory minimum detection limits for select VOC and SVOC compounds exceeded their associated RSR numeric standards. The laboratory RCP Certification Report states for SVOCs that the “high percent moisture of the samples resulted in elevated reporting limits that exceed the requested criteria for one or more analytes.” Since the particular compounds are not considered primary compounds within those parameter groups, those compounds are not considered a potential exceedance unless the more common VOC/SVOC compounds were already identified in exceedance of RSR standards.

HRP did not note any issues or discrepancies which are likely to affect data quality and determined that the data results are suitable for their intended purpose. According to the *Laboratory Analysis QA/QC Certification Form,* Question #1 (For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed?) was answered “Yes.” The

affirmative response indicates that the laboratory's QA Director certifies the report's conformance with RCP requirements.

8.0 CONCLUSIONS AND RECOMMENDATIONS

HRP completed a Task 210 (Subsurface Site Investigation) on behalf of the CT DOT in association with the planned railway culvert improvements at MP 65.80, New Haven Mainline, Milford, CT. The investigation focused on soils and groundwater in the planned construction limits. Based on the data presented in this report, HRP has made the following conclusions and recommendations:

- Soils located in the vicinity of the proposed culvert improvement work area generally exhibited concentrations of SVOCs, ETPH, and arsenic in exceedance of the RSR standards. The distribution of contamination appeared widespread along both sides of the RR tracks.

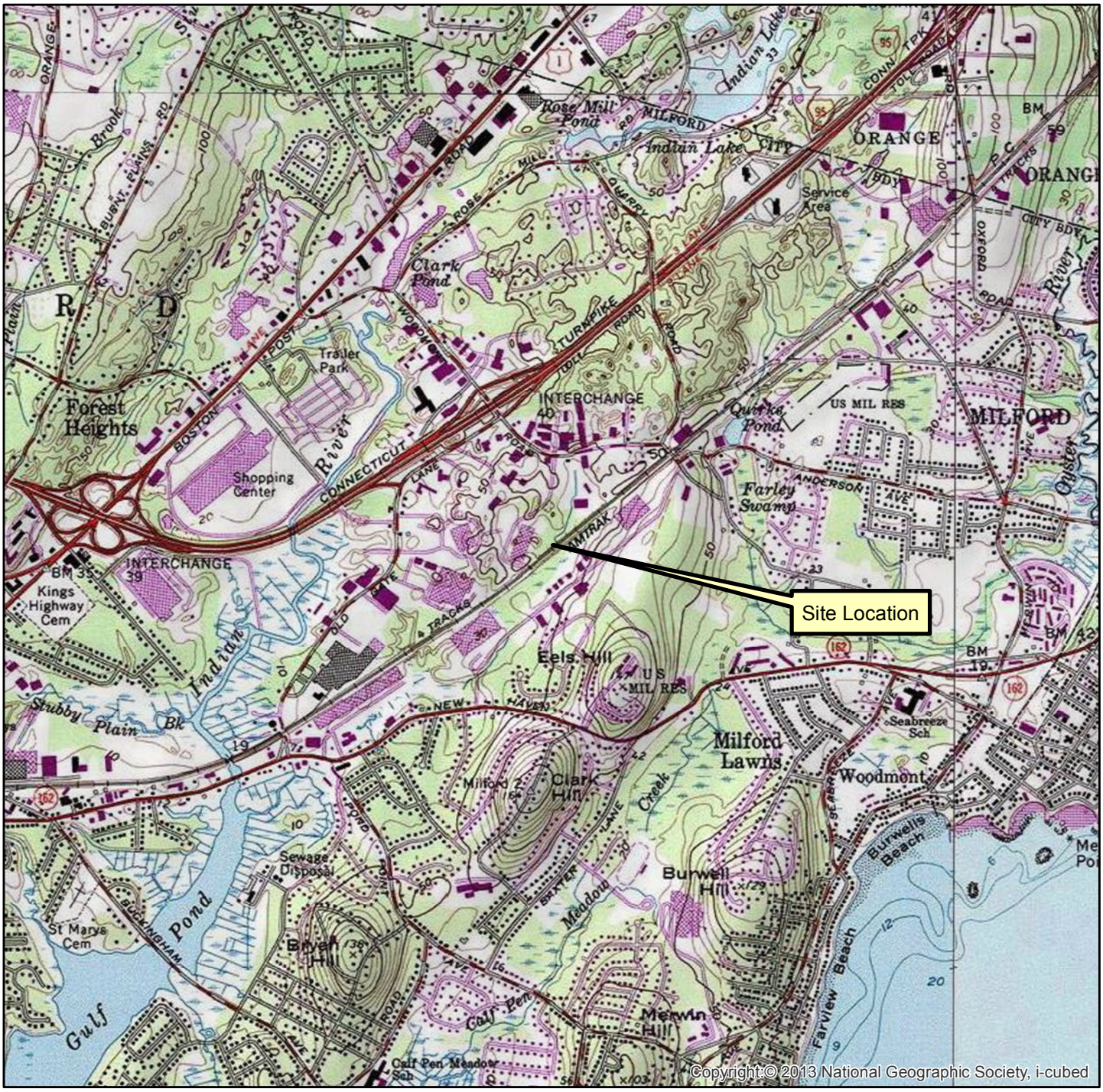
- One (1) of the three (3) samples collected along the proposed access road (SB-7) exhibited SVOCs, ETPH, and arsenic in exceedance of applicable RSR standards. This boring is closest to the RR right of way. The remaining two (2) samples positioned further away from the tracks contained low-level concentrations of SVOCs, below applicable RSR standards.

- Groundwater within the project limits exhibited total and dissolved arsenic (as well as total lead) in exceedance of applicable RSR standards.

- Groundwater results were also compared to the General Permits for the Discharge of Groundwater Remediation Wastewater Directly to Sanitary Sewer and Directly to Surface Water to assess potential groundwater management options if needed during construction activities. No parameters exceeded the sanitary sewer discharge general permit limits but select SVOCs, total/dissolved metals exceeded the surface water discharge general permit limits. It is noted that this comparison should be considered cursory and not directly representative of discharge sample results.

HRP recommends that a Task 310 – Plans, Specifications, and Estimates be completed in order to properly manage contaminated materials during construction activities. Management activities would include removal, handling, transportation, reuse, and/or proper disposal of the contaminated materials. Additionally, the Task 310 establishes appropriate Heath and Safety protocols for construction workers performing activities related to addressing the contaminated materials.

FIGURES



USGS Quadrangle Information
Quad ID: 41073-B1
Name: Milford, Connecticut
Date Pub: 1985
Date Rev: 1982
Map Edit: 1

Figure 1
Site Location
Replacement of Culvert at MP 65.80
New Haven Mainline over Unnamed Stream
Milford, Connecticut
HRP # CTD4034.21
Scale 1" = 2,000'

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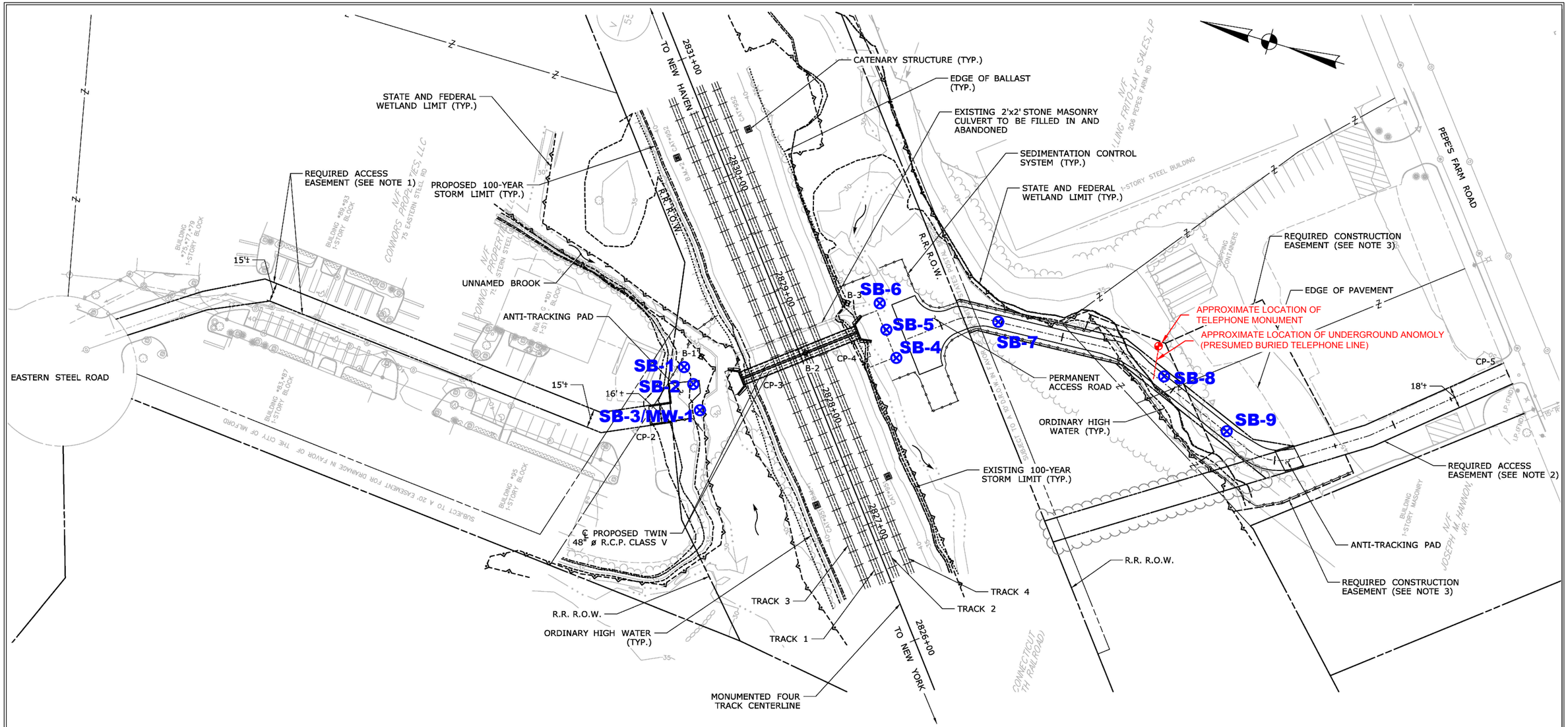
Path: V:\Data\C\CONND - CONNECTICUT DEPARTMENT OF TRANSPORTATION\Milford - Milford\REPLACEMENT OF CULVERT AT MP 65, NEW HAVEN MAINLINE OVER UNNAMED STREAM\CTD4034211\GIS\Site Location.mxd



LEGEND

⊗ -SOIL BORING LOCATION (APPROXIMATE)

HRP MOVE YOUR ENVIRONMENT FORWARD 197 SCOTT SWAMP ROAD FARMINGTON, CT 06032 (860) 674-9570 HRPASSOCIATES.COM	NORTH 0 40' 80'	REVISIONS NO. | DATE	DESIGNED BY: JAB2 DRAWN BY: BOB	REVIEWED BY: WAS PROJECT NUMBER: CTD4034.21	ISSUE DATE: 08/21/2017 SHEET SIZE: 11"x17"	SITE PLAN WITH SOIL BORING LOCATIONS REPLACEMENT OF CULVERT AT MP 65.80, NEW HAVEN MAINLINE OVER UNNAMED STREAM MILFORD, CONNECTICUT	FIGURE NO. 2

TABLES

Table 1.
Soil Sample Analytical Results
REPLACEMENT OF CULVERT AT MP 65, NEW HAVEN MAINLINE OVER UNNAMED STREAM
HRP #CTD403421

						Lab Report No.:	GBY76373	GBY76373	GBY76373	GBY76373	GBY76373	GBY76373	GBY76373	GBY76373	GBY76373
						Lab Sample No.:	BY76373SITE	BY76374SITE	BY76375SITE	BY76376SITE	BY76377SITE	BY76378SITE	BY76379SITE	BY76380SITE	BY76381SITE
						HRP Sample No.:	SB-1 (0-2 FT)	SB-2 (0-2 FT)	SB-3 (0-2 FT)	SB-4 (0-2 FT)	SB-5 (0-2 FT)	SB-6 (0-2 FT)	SB-7 (0-2 FT)	SB-8 (0-2 FT)	SB-9 (0-2 FT)
						Date Collected:	08/01/17	08/01/17	08/01/17	08/01/17	08/01/17	08/01/17	08/01/17	08/01/17	08/01/17
SOIL-Metals				**2015/2013 - Res DEC**	**.**										
Arsenic		7440-38-2	mg/kg	10		6.11	2.70	3.52	**19.8**	**35.8**	**14.4**	**30.9**	3.25	4.51
Barium		7440-39-3	mg/kg	4,700		59.5	47.3	60.6	143	168	67.9	124	20.7	52.3
Cadmium		7440-43-9	mg/kg	34		0.85	0.76	0.79	2.4	3.47	1.64	2.1	<0.42	<0.34
Chromium, Total		7440-47-3	mg/kg	100		32.5	18.1	23.6	39.4	53.6	22.5	80.5	28.4	21.5
Lead		7439-92-1	mg/kg	400		39.5	19.7	21.7	138	136	48.2	120	8.11	<0.34
Mercury		7439-97-6	mg/kg	20		0.07	<0.03	0.03	0.24	0.11	0.06	1.35	<0.04	<0.03
Selenium		7782-49-2	mg/kg	340		<1.4	<1.5	<1.5	<4.4	<3.8	<1.3	<4.7	<1.7	<1.4
Silver		7440-22-4	mg/kg	340		<0.35	<0.39	<0.38	<1.1	<0.95	<0.31	<1.2	<0.42	<0.34
SOIL-Metals-SPLP				**.**	**2015/2013 - GB PMC**									
Arsenic		7440-38-2	mg/l		0.5	<0.004	0.005	0.004	0.004	<0.004	<0.004	0.008	0.004	<0.004
Barium		7440-39-3	mg/l		10.0	0.017	0.013	0.013	<0.010	<0.010	<0.010	0.011	0.014	<0.010
Cadmium		7440-43-9	mg/l		0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium, Total		7440-47-3	mg/l		0.5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead		7439-92-1	mg/l		0.15	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Mercury		7439-97-6	mg/l		0.02	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium		7782-49-2	mg/l		0.5	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Silver		7440-22-4	mg/l		0.36	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SOIL-8270C				**2015/2013 - Res DEC**	**2015/2013 - GB PMC**									
Acenaphthene		83-32-9	µg/kg	1000000	84000	<270	810	<290	<750	<640	<350	<760	<320	<260
Anthracene		120-12-7	µg/kg	1,000,000	400,000	350	2700	1600	<750	<640	<350	<760	<320	<260
Benzidine		92-87-5	µg/kg	200	1000	<200	<200	<200	(<430)	(<370)	<200	(<430)	<200	<200
Benzo(a)anthracene		56-55-3	µg/kg	1,000	1,000	**2700**	**12000**	**9800**	<750	**1300**	460	**1500**	<320	470
Benzo(a)pyrene		50-32-8	µg/kg	1,000	1,000	**3800**	**18000**	**15000**	<750	**1300**	580	**2100**	<320	760
Benzo(b)fluoranthene		205-99-2	µg/kg	1,000	1,000	**5200**	**17000**	**16000**	<750	**1800**	930	**3300**	<320	840
Benzo(ghi)perylene		191-24-2	µg/kg	8400	1000	**3000**	**7400**	**7900**	**1100**	**1300**	630	**2000**	<320	810
Benzo(k)fluoranthene		207-08-9	µg/kg	8,400	1,000	**3300**	**6500**	**6500**	<750	**1400**	670	**2200**	<320	700
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	44,000	11,000	440	1000	430	<750	<640	<350	<760	<320	<260
Carbazole		86-74-8	µg/kg	31000	1000	400	**1500**	840	(<1100)	<910	<490	(<1100)	<450	<370
Chrysene		218-01-9	µg/kg	84000	1000	**4400**	**16000**	**13000**	<750	**1900**	830	**2700**	<320	740
Dibenzo(a,H)anthracene		53-70-3	µg/kg	1000	1000	430	**2600**	**2900**	<750	<640	<350	<760	<320	<260
Dibenzofuran		132-64-9	µg/kg	68000	1400	<270	520	<290	<750	<640	<350	<760	<320	<260
Fluoranthene		206-44-0	µg/kg	1,000,000	56,000	7000	23000	20000	<750	3300	1200	4000	380	1200
Fluorene		86-73-7	µg/kg	1,000,000	56,000	<270	1100	310	<750	<640	<350	<760	<320	<260
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	1000	1000	**3200**	**8800**	**8800**	**1100**	**1400**	700	**2200**	<320	840
N-Nitrosodimethylamine		62-75-9	µg/kg	200	1000	<200	<200	<200	(<300)	(<260)	<200	(<310)	<200	<200
N-Nitrosodi-n-propylamine		621-64-7	µg/kg	200	1000	<200	<200	<200	(<340)	(<300)	<200	(<350)	<200	<200
Pentachlorophenol		87-86-5	µg/kg	5,100	1,000	<390	<400	<410	(<1100)	<910	<490	(<1100)	<450	<370
Phenanthrene		85-01-8	µg/kg	1,000,000	40,000	2100	11000	4600	<750	1500	360	1200	<320	440
Pyrene		129-00-0	µg/kg	1,000,000	40,000	6100	21000	16000	<750	2700	1000	3200	<320	990
Pyridine		110-86-1	µg/kg	20000	1000	<390	<400	<410	(<1100)	<910	<490	(<1100)	<450	<370
SOIL-8260B				**2015/2013 - Res DEC**	**2015/2013 - GB PMC**									
1,1,1,2-Tetrachloroethane		630-20-6	µg/kg	24,000	200	<8.3	<6.6	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
1,1,2,2-Tetrachloroethane		79-34-5	µg/kg	3,100	100	<5.0	(<260)	(<300)	<15	<13	<5.9	<13	(<250)	<3.1
1,2-Dibromo-3-chloropropane		96-12-8	µg/kg	90	40	<8.3	(<90)	<8.1	<25	<21	<9.8	<22	(<90)	<5.1
1,2-Dibromoethane (EDB) (ethylene dibromide)		106-93-4	µg/kg	7	100	<7.0	<6.6	<7.0	<7.0	<7.0	<7.0	<7.0	<6.6	<5.1
1,2-Dichloroethane		107-06-2	µg/kg	6,700	200	<8.3	<6.6	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
2-Butanone (MEK)		78-93-3	µg/kg	500,000	80,000	<50	48	<49	170	<130	<59	<130	<39	<31
Acrylonitrile		107-13-1	µg/kg	1,100	100	<8.3	<6.6	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
Benzene		71-43-2	µg/kg	21,000	200	<8.3	<6.6	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
Bromodichloromethane		75-27-4	µg/kg	18000	210	<8.3	<6.6	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
Dibromochloromethane		124-48-1	µg/kg	7,300	100	<5.0	<4.0	<4.9	<15	<13	<5.9	<13	<3.9	<3.1
Toluene		108-88-3	µg/kg	500,000	67,000	<8.3	19	<8.1	<25	<21	<9.8	<22	<6.6	<5.1
SOIL-CTETPH				**2015/2013 - Res DEC**	**2015/2013 - GB PMC**									
CT ETPH		CT ETPH	mg/kg	500	2,500	380	**530**	**1500**	**600**	**1000**	140	<160	<67	<55
SOIL-PCBs-8082				**2015/2013 - Res DEC**	**2015/2013 - GB PMC**									
PCB-1016		12674-11-2	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1221		11104-28-2	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1232		11141-16-5	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1242		53469-21-9	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1248		12672-29-6	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1254		11097-69-1	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1260		11096-82-5	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1262		37324-23-5	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCB-1268		11100-14-4	µg/kg			<78	<81	<81	<53	<90	<65	<55	<89	<75
PCBs(8082)-Total			µg/kg	1,000		<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL
SOIL-Misc				**2015/2013 - Res DEC**	**2015/2013 - GB PMC**									
solids (percent)		solids	%			83	82	81	31	36	NA	30	73	89

Legend

1	Parameter reported at a concentration greater than applicable regulatory standard/criterion
( )	Indicates the laboratory reporting limit is greater than one or more applicable comparison criteria

Notes:
mg/l = milligrams per liter
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
(ft.) = feet
GB PMC = Groundwater Class 'GB' Pollutant Mobility Criteria
SPLP = Synthetic Precipitation Leaching Procedure
Res DEC = Residential Direct Exposure Criteria
ETPH = Extractable Total Petroleum Hydrocarbons
NA = Not Submitted for Analysis
PCBs = Polychlorinated Biphenyls

Table 2.
Groundwater Sample Analytical Results
REPLACEMENT OF CULVERT AT MP 65, NEW HAVEN MAINLINE OVER UNNAMED STREAM
HRP #CTD403421

Lab Report No.:	GBY76373
Lab Sample No.:	BY76382SITE
HRP Sample No.:	**MW-1**
Date Collected:	**08/01/17**

WATER-Metals			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
Arsenic	7440-38-2	mg/l		0.004	**0.025**
Barium	7440-39-3	mg/l		2.2	0.743
Cadmium	7440-43-9	mg/l		0.006	0.004
Chromium, Total	7440-47-3	mg/l		0.11	0.015
Lead	7439-92-1	mg/l		0.013	**0.027**
Mercury	7439-97-6	mg/l		0.0004	<0.0002
Selenium	7782-49-2	mg/l		0.05	<0.010
Silver	7440-22-4	mg/l		0.012	<0.001
WATER-DissolvedMetals			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
Arsenic	7440-38-2	mg/l		0.004	**0.006**
Barium	7440-39-3	mg/l		2.2	0.415
Cadmium	7440-43-9	mg/l		0.006	0.001
Chromium, Total	7440-47-3	mg/l		0.11	0.002
Lead	7439-92-1	mg/l		0.013	0.004
Mercury	7439-97-6	mg/l		0.0004	<0.0002
Selenium	7782-49-2	mg/l		0.05	<0.011
Silver	7440-22-4	mg/l		0.012	<0.001
WATER-8270C			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
Anthracene	120-12-7	µg/l		1,100,000	0.07
Benzo(a)anthracene	56-55-3	µg/l		0.3	0.08
Benzo(a)pyrene	50-32-8	µg/l		0.3	0.10
Benzo(b)fluoranthene	205-99-2	µg/l		0.3	0.12
Benzo(k)fluoranthene	207-08-9	µg/l		0.3	0.10
Bis(2-ethylhexyl)phthalate	117-81-7	µg/l		59	1.3
Chrysene	218-01-9	µg/l		0.54	0.12
Dibenzo(a,H)anthracene	53-70-3	µg/l		0.3	0.03
Fluoranthene	206-44-0	µg/l		3,700	0.19
Indeno(1,2,3-cd)pyrene	193-39-5	µg/l		0.54	0.08
Pyrene	129-00-0	µg/l		110,000	0.16
WATER-8260B			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
1,1-Dichloroethylene	75-35-4	µg/l	1	96	(<5.0)
1,2-Dibromo-3-chloropropane	96-12-8	µg/l		1.1	(<5.0)
1,2-Dibromoethane (EDB) (ethylene dibromide)	106-93-4	µg/l	4		(<5.0)
Acrylonitrile	107-13-1	µg/l		20	(<25)
Bromodichloromethane	75-27-4	µg/l	1.1	510	(<2.5)
Vinyl chloride	75-01-4	µg/l	2	15,750	(<5.0)
WATER-CTETPH			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
CT ETPH	CT ETPH	mg/l		0.25	<0.066
WATER-PCBs-8082			**2015/2013 - Res GWVC**	**2015/2013 - SWPC**	
PCB-1016	12674-11-2	µg/l			<0.50
PCB-1221	11104-28-2	µg/l			<0.50
PCB-1232	11141-16-5	µg/l			<0.50
PCB-1242	53469-21-9	µg/l			<0.50
PCB-1248	12672-29-6	µg/l			<0.50
PCB-1254	11097-69-1	µg/l			<0.50
PCB-1260	11096-82-5	µg/l			<0.50
PCB-1262	37324-23-5	µg/l			<0.50
PCB-1268	11100-14-4	µg/l			<0.50
PCBs(8082)-Total		µg/l		0.5	<BRL

Legend

1	Parameter reported at a concentration greater than applicable regulatory standard/criterion
( )	Indicates the laboratory reporting limit is greater than one or more applicable comparison criteria
BRL	Parameter consists of multiple isomers and were not detected above the laboratory reporting limit

Notes:
mg/l = milligrams per liter
µg/l = micrograms per liter
(ft.) = feet
SWPC = Surface Water Protection Criteria
Res GWVC = Residential Volatilization Criteria for Groundwater
ETPH = Extractable Total Petroleum Hydrocarbons
NA = Not Submitted for Analysis
PCBs = Polychlorinated Biphenyls

APPENDIX A
Soil Boring Logs

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-1
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		2'	NA		0-2	SAND: dark brown, medium-fine grained. Some OM	0-2	31.9	0-2	SB-1 (0-2') 8:25
				Moist		2-4	SAND: fine grained, moist				
							Bottom of boring 4.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-2
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		2'	Moist		0-0.5	Topsoil and OM	0-2	395.3	0-2	SB-2 (0-2') 8:33
						0.5-2	SAND: dark brown, medium grained, moist.				
				Moist		2-3	SAND: dark brown, medium grained, moist.				
						3-4	Roots, no soil				
							Bottom of boring 4.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		# Blows/ft	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-3
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		2	NA		0.0-1.0	SAND: medium-light brown, medium-fine grained	0-2	55.3	0-2	SB-3 (0-2') 8:39
				Moist		1.0-3.0	SAND: Medium-fine grained, v. moist				
						3.0-4.0	Coarse sand and rocks				
							Bottom of boring at 4.0'				
							Installed 1" temporoary well; screen 0-4', ±4" of water Sampled at 11:30				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-4
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		2	Wet		0.0-0.5	OM	0-2	55.3	0-2	SB-4 (0-2') 10:07
						0.5-2.0	SAND: dark brown, fine grained, homogenous				
						2.0-03.5	SAND: dark brown, fine grained, homogenous				
						3.5-4.0	OM				
							Bottom of boring at 4.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-5
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		<1	Wet		0-4	SAND: dark brown, v. fine, wet	0-2	0	0-2	SB-5 (0-2') 10:10
							Bottom of boring at 4.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-6
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 4 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	4		1.5	NA		0.0-0.5	OM	0-2	3	0-2	SB-6 (0-2') 10:15
						0.5-4.0	SAND: medium brown, fine-v.fine, homogenous				
							Bottom of boring at 4.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-7
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 2 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	2		1	Moist		0-2	SAND: medium-dark brown, fine-v. fine, homogenous	0-2	0	0-2	SB-7 (0-2') 10:19
							Bottom of boring at 2.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-8
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 2 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	2		1	Moist		0.0-0.5	SAND: medium-fine	0-2	0	0-2	SB-8 (0-2') 10:33
				Wet		0.5-2.0	SAND: fine-v.fine, wet				
							Bottom of boring at 2.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Replacement of Culvert at MP 65.80, New Haven Mainline Over Unnamed Stream	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-9
Location: Milford, CT	**DRILLING / SOIL LOG**	
HRP# : CTD4034.21		Sheet No. 1 of 1
	Rig Type: Handheld Slam-Bar	
Date: 8/1/2017	**Hammer (weight [lb] / fall [inches])**	Driller: CES
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth: 2 feet	trace: 0 to 10% some: 20 to 35%	
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%	

	Casing	Sampler	Core Barrel
Type			
O.D. (inch)			
I.D. (inch)			

Sampler Depth interval (ft)		Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm)		Soil Sample Details	
from	to							Depth	Reading	Interval	ID
0	2		1	NA		0-2	SAND: medium-light brown, medium-coarse grained with rocks and OM, Dry	0-2	37.9	0-2	SB-9 (0-2') 10:55
							Bottom of boring at 2.0'				

Monitoring Well Details

from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size

SOIL TYPE

CH (Fat Clay)	OH (Organic Clay / Silt of High Plasticity)
CL (Lean Clay)	OL (Organic Clay / Silt of Low Plasticity)
GC (Clayey Gravel)	PT (Highly Organic Soil / Peat)
GM (Silty Gravel)	SC (Clayey Sand)
GP (Poorly Graded Gravel)	SM (Silty Sand)
GW (Well-Graded Gravel)	SP (Poorly Graded Sand)
MH (Elastic Silt)	SW (Well-Graded Sand)
ML (Silt)	

ANNULAR FILL MATERIALS

from	to	Material

Penetration Resistance-140 lb./30" on 2" O.D. sampler

Cohesionless Density		Cohesive Consistence	
# Blows/ft		*# Blows/ft*	
0-4	very loose	0-2	very soft
5-9	loose	3-4	soft
10-29	edium dens	5-8	medium stiff
30-49	dense	15-Sep	stiff
50+	very dense	16-30	very stiff
		31+	hard

APPENDIX B
Laboratory Analytical Report

PHOENIX
Environmental Laboratories, Inc.

Wednesday, August 09, 2017

Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Project ID: CTD403421
Sample ID#s: BY76373 - BY76385

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76373

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.35	0.35	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	6.11	0.71	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	59.5	0.35	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	0.85	0.35	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	32.5	0.35	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	0.07	0.03	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	39.5	0.35	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.4	1.4	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/03/17	MA	SW6010C	
SPLP Barium	0.017	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	MA	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	MA	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	83		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	380	300	mg/Kg	5	08/03/17	JRB	CTETPH 8015D	

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Phoenix I.D.: BY76373

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	5	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	5	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	78	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	63		%	2	08/04/17	AW	30 - 150 %
% TCMX	56		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	41	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	41	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	410	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Phoenix I.D.: BY76373

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	50	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	17	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	17	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	17	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	17	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	8.3	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	111		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Phoenix I.D.: BY76373

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	630	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	350	270	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	2700	270	ug/Kg	1	08/02/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	3800	270	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(b)fluoranthene	5200	270	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(ghi)perylene	3000	270	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	3300	270	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	780	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	440	270	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	400	390	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	4400	270	ug/Kg	1	08/02/17	DD	SW8270D
Dibenz(a,h)anthracene	430	270	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Phoenix I.D.: BY76373

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	7000	270	ug/Kg	1	08/02/17	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	3200	270	ug/Kg	1	08/02/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	2100	270	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	270	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	6100	270	ug/Kg	1	08/02/17	DD	SW8270D
Pyridine	ND	390	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	67		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	73		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	71		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	75		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	65		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

Project ID: CTD403421
Client ID: SB-1 (0-2 FT)

Phoenix I.D.: BY76373

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76374

Project ID: CTD403421
Client ID: SB-2 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.39	0.39	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	2.70	0.77	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	47.3	0.39	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	0.76	0.39	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	18.1	0.39	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	19.7	0.39	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.5	1.5	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Arsenic	0.005	0.004	mg/L	1	08/03/17	MA	SW6010C	
SPLP Barium	0.013	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	MA	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	MA	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	82		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	530	300	mg/Kg	5	08/03/17	JRB	CTETPH 8015D	

Project ID: CTD403421
Client ID: SB-2 (0-2 FT)

Phoenix I.D.: BY76374

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	5	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	112		%	5	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	71		%	2	08/04/17	AW	30 - 150 %
% TCMX	64		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	260	ug/Kg	50	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	90	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
2-Hexanone	ND	33	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	330	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
Bromochloromethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-2 (0-2 FT)

Phoenix I.D.: BY76374

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	4.0	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
m&p-Xylene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	48	40	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
o-Xylene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
Styrene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	440	ug/Kg	50	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	19	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	880	ug/Kg	50	08/03/17	JLI	SW8260C
Trichloroethene	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	6.6	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	50	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	50	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	114		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	90		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-2 (0-2 FT)

Phoenix I.D.: BY76374

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	810	280	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	2700	280	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	12000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	18000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Benzo(b)fluoranthene	17000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Benzo(ghi)perylene	7400	280	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	6500	280	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	800	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	1000	280	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	1500	400	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	16000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Dibenz(a,h)anthracene	2600	280	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	520	280	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-2 (0-2 FT)

Phoenix I.D.: BY76374

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	23000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Fluorene	1100	280	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	8800	2800	ug/Kg	10	08/04/17	DD	SW8270D
Isophorone	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	11000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Phenol	ND	280	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	21000	2800	ug/Kg	10	08/04/17	DD	SW8270D
Pyridine	ND	400	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	78		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	81		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	83		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	74		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76375

Project ID: CTD403421
Client ID: SB-3 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.38	0.38	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	3.52	0.75	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	60.6	0.38	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	0.79	0.38	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	23.6	0.38	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	0.03	0.03	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	21.7	0.38	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.5	1.5	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	0.004	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	0.013	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	81		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	1500	300	mg/Kg	5	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-3 (0-2 FT)

Phoenix I.D.: BY76375

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	5	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	143		%	5	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	81	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	64		%	2	08/04/17	AW	30 - 150 %
% TCMX	58		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	300	ug/Kg	50	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
2-Hexanone	ND	41	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	41	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	410	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Bromochloromethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-3 (0-2 FT)

Phoenix I.D.: BY76375

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	4.9	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
m&p-Xylene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	16	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
o-Xylene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Styrene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	16	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	1000	ug/Kg	50	08/03/17	JLI	SW8260C
Trichloroethene	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	8.1	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	50	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	95		%	50	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	112		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	91		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-3 (0-2 FT)

Phoenix I.D.: BY76375

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	1600	290	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	9800	2900	ug/Kg	10	08/04/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	15000	2900	ug/Kg	10	08/04/17	DD	SW8270D
Benzo(b)fluoranthene	16000	2900	ug/Kg	10	08/04/17	DD	SW8270D
Benzo(ghi)perylene	7900	2900	ug/Kg	10	08/04/17	DD	SW8270D
Benzo(k)fluoranthene	6500	290	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	820	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	430	290	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	840	410	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	13000	2900	ug/Kg	10	08/04/17	DD	SW8270D
Dibenz(a,h)anthracene	2900	290	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-3 (0-2 FT)

Phoenix I.D.: BY76375

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	20000	2900	ug/Kg	10	08/04/17	DD	SW8270D
Fluorene	310	290	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	8800	2900	ug/Kg	10	08/04/17	DD	SW8270D
Isophorone	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	4600	290	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	290	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	16000	2900	ug/Kg	10	08/04/17	DD	SW8270D
Pyridine	ND	410	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	66		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	70		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	75		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	79		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	83		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	76		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C16 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76376

Project ID: CTD403421
Client ID: SB-4 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 1.1	1.1	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	19.8	2.2	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	143	1.1	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	2.4	1.1	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	39.4	1.1	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	0.24	0.08	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	138	1.1	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 4.4	4.4	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Arsenic	0.004	0.004	mg/L	1	08/03/17	MA	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	MA	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	MA	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	MA	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	31		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	600	160	mg/Kg	1	08/03/17	JRB	CTETPH 8015D	

Project ID: CTD403421
Client ID: SB-4 (0-2 FT)

Phoenix I.D.: BY76376

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1221	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1232	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1242	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1248	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1254	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1260	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1262	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1268	ND	53	ug/Kg	1	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	53		%	1	08/04/17	AW	30 - 150 %
% TCMX	65		%	1	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	15	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	120	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	120	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	1200	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-4 (0-2 FT)

Phoenix I.D.: BY76376

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	15	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	170	150	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	108		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-4 (0-2 FT)

Phoenix I.D.: BY76376

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	770	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	1700	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Benzidine	ND	430	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(b)fluoranthene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(ghi)perylene	1100	750	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	2100	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-4 (0-2 FT)

Phoenix I.D.: BY76376

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Fluorene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1100	750	ug/Kg	1	08/02/17	DD	SW8270D
Isophorone	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	300	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	340	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	ND	750	ug/Kg	1	08/02/17	DD	SW8270D
Pyridine	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	55		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	43		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	54		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	45		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	57		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	54		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76377

Project ID: CTD403421
Client ID: SB-5 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.95	0.95	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	35.8	1.9	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	168	0.95	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	3.47	0.95	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	53.6	0.95	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	0.11	0.06	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	136	0.95	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 3.8	3.8	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	36		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	1000	670	mg/Kg	5	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-5 (0-2 FT)

Phoenix I.D.: BY76377

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	5	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	5	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	90	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	48		%	2	08/04/17	AW	30 - 150 %
% TCMX	52		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	110	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	110	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	1100	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-5 (0-2 FT)

Phoenix I.D.: BY76377

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	130	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	43	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	43	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	43	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	43	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	21	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	91		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	107		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-5 (0-2 FT)

Phoenix I.D.: BY76377

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	770	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	1500	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	1300	640	ug/Kg	1	08/02/17	DD	SW8270D
Benzidine	ND	370	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	1300	640	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(b)fluoranthene	1800	640	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(ghi)perylene	1300	640	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	1400	640	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	1800	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	1900	640	ug/Kg	1	08/02/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-5 (0-2 FT)

Phoenix I.D.: BY76377

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	3300	640	ug/Kg	1	08/02/17	DD	SW8270D
Fluorene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1400	640	ug/Kg	1	08/02/17	DD	SW8270D
Isophorone	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	260	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	300	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	1500	640	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	640	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	2700	640	ug/Kg	1	08/02/17	DD	SW8270D
Pyridine	ND	910	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	53		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	46		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	52		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	53		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	67		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C16 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76378

Project ID: CTD403421
Client ID: SB-6 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.31	0.31	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	14.4	0.63	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	67.9	0.31	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	1.64	0.31	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	22.5	0.31	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	0.06	0.03	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	48.2	0.31	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.3	1.3	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	140	49	mg/Kg	1	08/03/17	JRB	CTETPH 8015D	
Identification	**		mg/Kg	1	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-6 (0-2 FT)

Phoenix I.D.: BY76378

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	69		%	1	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	65	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	48		%	2	08/04/17	AW	30 - 150 %
% TCMX	52		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.9	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	49	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	490	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Bromodichloromethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-6 (0-2 FT)

Phoenix I.D.: BY76378

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	5.9	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	59	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	20	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	20	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	20	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	9.8	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	86		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	109		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
1,2-Dichlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	490	ug/Kg	1	08/03/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-6 (0-2 FT)

Phoenix I.D.: BY76378

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
1,4-Dichlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dichlorophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dimethylphenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dinitrophenol	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dinitrotoluene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2,6-Dinitrotoluene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2-Chloronaphthalene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2-Chlorophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2-Methylnaphthalene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
2-Nitroaniline	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
2-Nitrophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
3-Nitroaniline	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
4-Chloroaniline	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
4-Nitroaniline	ND	790	ug/Kg	1	08/03/17	DD	SW8270D
4-Nitrophenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Acenaphthene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Acenaphthylene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Acetophenone	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Aniline	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Anthracene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Benz(a)anthracene	460	350	ug/Kg	1	08/03/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(a)pyrene	580	350	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(b)fluoranthene	930	350	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(ghi)perylene	630	350	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(k)fluoranthene	670	350	ug/Kg	1	08/03/17	DD	SW8270D
Benzoic acid	ND	990	ug/Kg	1	08/03/17	DD	SW8270D
Benzyl butyl phthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Carbazole	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Chrysene	830	350	ug/Kg	1	08/03/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Dibenzofuran	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Diethyl phthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Dimethylphthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Di-n-butylphthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-6 (0-2 FT)

Phoenix I.D.: BY76378

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Fluoranthene	1200	350	ug/Kg	1	08/03/17	DD	SW8270D
Fluorene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorobutadiene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Hexachloroethane	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	700	350	ug/Kg	1	08/03/17	DD	SW8270D
Isophorone	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Naphthalene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Nitrobenzene	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Pentachloronitrobenzene	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Pentachlorophenol	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
Phenanthrene	360	350	ug/Kg	1	08/03/17	DD	SW8270D
Phenol	ND	350	ug/Kg	1	08/03/17	DD	SW8270D
Pyrene	1000	350	ug/Kg	1	08/03/17	DD	SW8270D
Pyridine	ND	490	ug/Kg	1	08/03/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	67		%	1	08/03/17	DD	30 - 130 %
% 2-Fluorobiphenyl	70		%	1	08/03/17	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	08/03/17	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	08/03/17	DD	30 - 130 %
% Phenol-d5	68		%	1	08/03/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	08/03/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76379

Project ID: CTD403421
Client ID: SB-7 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 1.2	1.2	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	30.9	2.3	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	124	1.2	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	2.1	1.2	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	80.5	1.2	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	1.35	0.08	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	120	1.2	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 4.7	4.7	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	0.008	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	0.011	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	30		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	160	mg/Kg	1	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-7 (0-2 FT)

Phoenix I.D.: BY76379

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	1	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1221	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1232	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1242	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1248	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1254	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1260	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1262	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
PCB-1268	ND	55	ug/Kg	1	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	53		%	1	08/04/17	AW	30 - 150 %
% TCMX	58		%	1	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	110	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	110	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	1100	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-7 (0-2 FT)

Phoenix I.D.: BY76379

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	13	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	130	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	44	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	44	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	44	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	44	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	22	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	110		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-7 (0-2 FT)

Phoenix I.D.: BY76379

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	770	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	1700	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	1500	760	ug/Kg	1	08/02/17	DD	SW8270D
Benzidine	ND	430	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	2100	760	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(b)fluoranthene	3300	760	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(ghi)perylene	2000	760	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	2200	760	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	2200	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	2700	760	ug/Kg	1	08/02/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-7 (0-2 FT)

Phoenix I.D.: BY76379

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	4000	760	ug/Kg	1	08/02/17	DD	SW8270D
Fluorene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2200	760	ug/Kg	1	08/02/17	DD	SW8270D
Isophorone	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	310	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	350	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	1200	760	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	760	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	3200	760	ug/Kg	1	08/02/17	DD	SW8270D
Pyridine	ND	1100	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	60		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	60		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	63		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76380

Project ID: CTD403421
Client ID: SB-8 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.42	0.42	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	3.25	0.84	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	20.7	0.42	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	< 0.42	0.42	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	28.4	0.42	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	< 0.04	0.04	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	8.11	0.42	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.7	1.7	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	0.004	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	0.014	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	73		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	67	mg/Kg	1	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-8 (0-2 FT)

Phoenix I.D.: BY76380

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	89	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	52		%	2	08/04/17	AW	30 - 150 %
% TCMX	58		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,1,1-Trichloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	08/03/17	HM	SW8260C
1,1,2-Trichloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,1-Dichloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,1-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,1-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,2,3-Trichlorobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,2,3-Trichloropropane	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,2,4-Trichlorobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,2,4-Trimethylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	90	ug/Kg	50	08/03/17	HM	SW8260C
1,2-Dibromoethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,2-Dichlorobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,2-Dichloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,2-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,3,5-Trimethylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,3-Dichlorobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
1,3-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
1,4-Dichlorobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
2,2-Dichloropropane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
2-Chlorotoluene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
2-Hexanone	ND	33	ug/Kg	1	08/03/17	HM	SW8260C
2-Isopropyltoluene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
4-Chlorotoluene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	08/03/17	HM	SW8260C
Acetone	ND	330	ug/Kg	1	08/03/17	HM	SW8260C
Acrylonitrile	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Benzene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Bromobenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
Bromochloromethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C

Project ID: CTD403421
Client ID: SB-8 (0-2 FT)

Phoenix I.D.: BY76380

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Bromoform	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Bromomethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Carbon Disulfide	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Carbon tetrachloride	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Chlorobenzene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Chloroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Chloroform	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Chloromethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
cis-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
cis-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	08/03/17	HM	SW8260C
Dibromomethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Dichlorodifluoromethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Ethylbenzene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Hexachlorobutadiene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
Isopropylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
m&p-Xylene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	08/03/17	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	08/03/17	HM	SW8260C
Methylene chloride	ND	13	ug/Kg	1	08/03/17	HM	SW8260C
Naphthalene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
n-Butylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
n-Propylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
o-Xylene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
p-Isopropyltoluene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
sec-Butylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
Styrene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
tert-Butylbenzene	ND	410	ug/Kg	50	08/03/17	HM	SW8260C
Tetrachloroethene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	08/03/17	HM	SW8260C
Toluene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Total Xylenes	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
trans-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
trans-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	820	ug/Kg	50	08/03/17	HM	SW8260C
Trichloroethene	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Trichlorofluoromethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Trichlorotrifluoroethane	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
Vinyl chloride	ND	6.6	ug/Kg	1	08/03/17	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	50	08/03/17	HM	70 - 130 %
% Bromofluorobenzene	95		%	50	08/03/17	HM	70 - 130 %
% Dibromofluoromethane	113		%	1	08/03/17	HM	70 - 130 %
% Toluene-d8	98		%	1	08/03/17	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-8 (0-2 FT)

Phoenix I.D.: BY76380

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2-Chloronaphthalene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2-Chlorophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylnaphthalene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitroaniline	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
2-Nitrophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
3-Nitroaniline	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
4-Chloroaniline	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitroaniline	ND	720	ug/Kg	1	08/02/17	DD	SW8270D
4-Nitrophenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Acenaphthylene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Acetophenone	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Aniline	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Anthracene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benz(a)anthracene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(a)pyrene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(b)fluoranthene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(ghi)perylene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benzo(k)fluoranthene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Benzoic acid	ND	900	ug/Kg	1	08/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Carbazole	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Chrysene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Dibenzofuran	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Diethyl phthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Dimethylphthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-8 (0-2 FT)

Phoenix I.D.: BY76380

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Di-n-octylphthalate	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Fluoranthene	380	320	ug/Kg	1	08/02/17	DD	SW8270D
Fluorene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorobutadiene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Hexachloroethane	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Isophorone	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Naphthalene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Nitrobenzene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Pentachlorophenol	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
Phenanthrene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Phenol	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Pyrene	ND	320	ug/Kg	1	08/02/17	DD	SW8270D
Pyridine	ND	450	ug/Kg	1	08/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	63		%	1	08/02/17	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	08/02/17	DD	30 - 130 %
% Nitrobenzene-d5	54		%	1	08/02/17	DD	30 - 130 %
% Phenol-d5	61		%	1	08/02/17	DD	30 - 130 %
% Terphenyl-d14	70		%	1	08/02/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director

August 09, 2017

Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76381

Project ID: CTD403421
Client ID: SB-9 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.34	0.34	mg/Kg	1	08/03/17	LK	SW6010C	
Arsenic	4.51	0.69	mg/Kg	1	08/03/17	LK	SW6010C	
Barium	52.3	0.34	mg/Kg	1	08/03/17	LK	SW6010C	
Cadmium	< 0.34	0.34	mg/Kg	1	08/03/17	LK	SW6010C	
Chromium	21.5	0.34	mg/Kg	1	08/03/17	LK	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	08/03/17	RS	SW7471B	
Lead	< 0.34	0.34	mg/Kg	1	08/03/17	LK	SW6010C	B
Selenium	< 1.4	1.4	mg/Kg	1	08/03/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/03/17	LK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/17	LK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/17	RS	SW7470A	
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/17	LK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/17	LK	SW6010C	
SPLP Metals Digestion	Completed				08/03/17	W/W	SW3005A	
Percent Solid	89		%		08/02/17	Q	SW846-%Solid	
Soil Extraction for PCB	Completed				08/02/17	JC/V	SW3545A	
Soil Extraction for SVOA	Completed				08/02/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				08/02/17	JC/VCK	SW3545A	
Mercury Digestion	Completed				08/03/17	WW/W	SW7471B	
SPLP Digestion Mercury	Completed				08/03/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				08/02/17	W	SW1312	
Total Metals Digest	Completed				08/02/17	L/AG/BF	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	08/03/17	JRB	CTETPH 8015D	

Ver 1

Project ID: CTD403421
Client ID: SB-9 (0-2 FT)

Phoenix I.D.: BY76381

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	08/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	1	08/03/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1221	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1232	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1242	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1248	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1254	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1260	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1262	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
PCB-1268	ND	75	ug/Kg	2	08/04/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	47		%	2	08/04/17	AW	30 - 150 %
% TCMX	55		%	2	08/04/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	08/03/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: SB-9 (0-2 FT)

Phoenix I.D.: BY76381

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	109		%	1	08/03/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	08/03/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-9 (0-2 FT)

Phoenix I.D.: BY76381

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	08/03/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Benz(a)anthracene	470	260	ug/Kg	1	08/03/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(a)pyrene	760	260	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(b)fluoranthene	840	260	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(ghi)perylene	810	260	ug/Kg	1	08/03/17	DD	SW8270D
Benzo(k)fluoranthene	700	260	ug/Kg	1	08/03/17	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	08/03/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Chrysene	740	260	ug/Kg	1	08/03/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D

Project ID: CTD403421
Client ID: SB-9 (0-2 FT)

Phoenix I.D.: BY76381

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Fluoranthene	1200	260	ug/Kg	1	08/03/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	840	260	ug/Kg	1	08/03/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	08/03/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
Phenanthrene	440	260	ug/Kg	1	08/03/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	08/03/17	DD	SW8270D
Pyrene	990	260	ug/Kg	1	08/03/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	08/03/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	65		%	1	08/03/17	DD	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	08/03/17	DD	30 - 130 %
% 2-Fluorophenol	73		%	1	08/03/17	DD	30 - 130 %
% Nitrobenzene-d5	71		%	1	08/03/17	DD	30 - 130 %
% Phenol-d5	75		%	1	08/03/17	DD	30 - 130 %
% Terphenyl-d14	67		%	1	08/03/17	DD	30 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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

B = Present in blank, no bias suspected.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76382

Project ID: CTD403421
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	08/05/17	MA	SW6010C
Arsenic	0.025	0.004	mg/L	1	08/05/17	LK	SW6010C
Barium	0.743	0.002	mg/L	1	08/05/17	LK	SW6010C
Cadmium	0.004	0.001	mg/L	1	08/05/17	LK	SW6010C
Chromium	0.015	0.001	mg/L	1	08/05/17	LK	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	08/03/17	MA	SW6010C
Arsenic (Dissolved)	0.006	0.004	mg/L	1	08/03/17	LK	SW6010C
Barium (Dissolved)	0.415	0.002	mg/L	1	08/03/17	LK	SW6010C
Cadmium (Dissolved)	0.001	0.001	mg/L	1	08/03/17	LK	SW6010C
Chromium (Dissolved)	0.002	0.001	mg/L	1	08/03/17	LK	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	08/03/17	RS	SW7470A
Lead (Dissolved)	0.004	0.002	mg/L	1	08/03/17	LK	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	08/03/17	LK	E200.7-4.4
Mercury	< 0.0002	0.0002	mg/L	1	08/03/17	RS	SW7470A
Lead	0.027	0.002	mg/L	1	08/05/17	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	08/05/17	LK	SW6010C
Extraction of CT ETPH	Completed				08/02/17	P/UU	SW3510C/SW3520C
Filtration	Completed				08/02/17	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				08/03/17	Q/W	SW7470A
Mercury Digestion	Completed				08/03/17	W/W	SW7470A
PCB Extraction	Completed				08/02/17	N	SW3510C
Semi-Volatile Extraction	Completed				08/02/17	P/D/D	SW3520C
Dissolved Metals Preparation	Completed				08/02/17	AG	SW3005A
Total Metals Digestion	Completed				08/03/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	08/03/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	08/03/17	JRB	CTETPH 8015D

Ver 1

Project ID: CTD403421
Client ID: MW-1

Phoenix I.D.: BY76382

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
QA/QC Surrogates								
% n-Pentacosane	74		%	1	08/03/17	JRB	50 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1221	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1232	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1242	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1248	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1254	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1260	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1262	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
PCB-1268	ND	0.50	ug/L	1	08/03/17	AW	SW8082A	
QA/QC Surrogates								
% DCBP	16		%	1	08/03/17	AW	30 - 150 %	3
% TCMX	71		%	1	08/03/17	AW	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	5	08/03/17	MH	SW8260C	
1,1,2-Trichloroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,1-Dichloroethene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,1-Dichloropropene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2,3-Trichloropropane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2-Dibromoethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2-Dichlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,2-Dichloroethane	ND	3.0	ug/L	5	08/03/17	MH	SW8260C	
1,2-Dichloropropane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,3-Dichlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,3-Dichloropropane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
1,4-Dichlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
2,2-Dichloropropane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
2-Chlorotoluene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
2-Hexanone	ND	25	ug/L	5	08/03/17	MH	SW8260C	
2-Isopropyltoluene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
4-Chlorotoluene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
4-Methyl-2-pentanone	ND	25	ug/L	5	08/03/17	MH	SW8260C	
Acetone	ND	130	ug/L	5	08/03/17	MH	SW8260C	
Acrylonitrile	ND	25	ug/L	5	08/03/17	MH	SW8260C	
Benzene	ND	3.5	ug/L	5	08/03/17	MH	SW8260C	
Bromobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
Bromochloromethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C	
Bromodichloromethane	ND	2.5	ug/L	5	08/03/17	MH	SW8260C	

Project ID: CTD403421
Client ID: MW-1

Phoenix I.D.: BY76382

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Bromomethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Carbon Disulfide	ND	25	ug/L	5	08/03/17	MH	SW8260C
Carbon tetrachloride	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Chlorobenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Chloroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Chloroform	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Chloromethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	2.0	ug/L	5	08/03/17	MH	SW8260C
Dibromochloromethane	ND	2.5	ug/L	5	08/03/17	MH	SW8260C
Dibromomethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Ethylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Hexachlorobutadiene	ND	2.0	ug/L	5	08/03/17	MH	SW8260C
Isopropylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
m&p-Xylene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Methyl ethyl ketone	ND	25	ug/L	5	08/03/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Methylene chloride	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Naphthalene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
n-Butylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
n-Propylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
o-Xylene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
p-Isopropyltoluene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
sec-Butylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Styrene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
tert-Butylbenzene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Tetrachloroethene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/L	5	08/03/17	MH	SW8260C
Toluene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Total Xylenes	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	2.0	ug/L	5	08/03/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	25	ug/L	5	08/03/17	MH	SW8260C
Trichloroethene	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Trichlorofluoromethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
Vinyl chloride	ND	5.0	ug/L	5	08/03/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	5	08/03/17	MH	70 - 130 %
% Bromofluorobenzene	98		%	5	08/03/17	MH	70 - 130 %
% Dibromofluoromethane	97		%	5	08/03/17	MH	70 - 130 %
% Toluene-d8	99		%	5	08/03/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	08/07/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	08/07/17	DD	SW8270D

Project ID: CTD403421
Client ID: MW-1

Phoenix I.D.: BY76382

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	2.4	ug/L	1	08/07/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
2-Chlorophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
2-Nitrophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.7	ug/L	1	08/07/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
4-Nitrophenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Aniline	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	08/07/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	08/07/17	DD	SW8270D
Phenol	ND	0.97	ug/L	1	08/07/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	08/07/17	DD	15 - 110 %
% 2-Fluorobiphenyl	80		%	1	08/07/17	DD	30 - 130 %
% 2-Fluorophenol	55		%	1	08/07/17	DD	15 - 110 %
% Nitrobenzene-d5	70		%	1	08/07/17	DD	30 - 130 %
% Phenol-d5	66		%	1	08/07/17	DD	15 - 110 %
% Terphenyl-d14	52		%	1	08/07/17	DD	30 - 130 %

Project ID: CTD403421
Client ID: MW-1

Phoenix I.D.: BY76382

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	08/04/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.97	ug/L	1	08/04/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Anthracene	0.07	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.08	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.10	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.12	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	08/04/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.10	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	1.3	0.48	ug/L	1	08/04/17	DD	SW8270D (SIM)
Chrysene	0.12	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.03	0.01	ug/L	1	08/04/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Fluoranthene	0.19	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	08/04/17	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	08/04/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	08/04/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.08	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	08/04/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	08/04/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	08/04/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	08/04/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Pyrene	0.16	0.05	ug/L	1	08/04/17	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	08/04/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	08/04/17	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	08/04/17	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	08/04/17	DD	15 - 110 %
% Nitrobenzene-d5	83		%	1	08/04/17	DD	30 - 130 %
% Phenol-d5	74		%	1	08/04/17	DD	15 - 110 %
% Terphenyl-d14	53		%	1	08/04/17	DD	30 - 130 %

Project ID: CTD403421
Client ID: MW-1

Phoenix I.D.: BY76382

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

3 = This parameter exceeds laboratory specified limits.

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:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Elevated reporting limits due to the foamy nature of the sample.

PCB Comment:
Poor surrogate recovery was observed for PCBs. Insufficient sample for re-extraction.

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

Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76383

Project ID: CTD403421
Client ID: TB-WATER

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	08/02/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	08/02/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	08/02/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	08/02/17	MH	SW8260C

Project ID: CTD403421
Client ID: TB-WATER

Phoenix I.D.: BY76383

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	08/02/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	08/02/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	08/02/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	08/02/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	08/02/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	08/02/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	08/02/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	08/02/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	08/02/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	08/02/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	08/02/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	08/02/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	08/02/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	08/02/17	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	08/02/17	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	08/02/17	MH	70 - 130 %

Ver 1

Project ID: CTD403421
Client ID: TB-WATER

Phoenix I.D.: BY76383

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99		%	1	08/02/17	MH	70 - 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:

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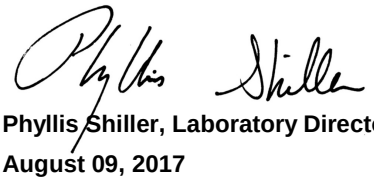


Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76384

Project ID: CTD403421
Client ID: TB-LOW

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: TB-LOW

Phoenix I.D.: BY76384

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	250	ug/Kg	1	08/03/17	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	08/03/17	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	08/03/17	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	08/03/17	JLI	70 - 130 %

Ver 1

Project ID: CTD403421
Client ID: TB-LOW

Phoenix I.D.: BY76384

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	1	08/03/17	JLI	70 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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.

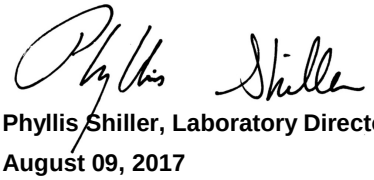
Comments:

TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

August 09, 2017

FOR: Attn: Mr. Walt Sepelak
HRP Associates Inc.
999 Oronoque Lane
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/01/17	8:25
Location Code:	HRPSTRAT	Received by:	LB	08/02/17	12:17
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBY76373
Phoenix ID: BY76385

Project ID: CTD403421
Client ID: TB-HIGH

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1-Dichloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1-Dichloroethene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,1-Dichloropropene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	90	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dibromoethane	ND	25	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dichloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,2-Dichloropropane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,3-Dichloropropane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
2,2-Dichloropropane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
2-Chlorotoluene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
2-Hexanone	ND	1300	ug/Kg	50	08/03/17	JLI	SW8260C
2-Isopropyltoluene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
4-Chlorotoluene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	08/03/17	JLI	SW8260C

Project ID: CTD403421
Client ID: TB-HIGH

Phoenix I.D.: BY76385

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5000	ug/Kg	50	08/03/17	JLI	SW8260C
Acrylonitrile	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Benzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Bromobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Bromochloromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Bromodichloromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Bromoform	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Bromomethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Carbon Disulfide	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Carbon tetrachloride	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Chlorobenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Chloroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Chloroform	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Chloromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Dibromochloromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Dibromomethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Dichlorodifluoromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Ethylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Hexachlorobutadiene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Isopropylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
m&p-Xylene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	08/03/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Methylene chloride	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Naphthalene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
n-Butylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
n-Propylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
o-Xylene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
p-Isopropyltoluene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
sec-Butylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Styrene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
tert-Butylbenzene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Tetrachloroethene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Toluene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Total Xylenes	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	08/03/17	JLI	SW8260C
Trichloroethene	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Trichlorofluoromethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
Vinyl chloride	ND	250	ug/Kg	50	08/03/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	50	08/03/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	50	08/03/17	JLI	70 - 130 %
% Dibromofluoromethane	102		%	50	08/03/17	JLI	70 - 130 %

Project ID: CTD403421
Client ID: TB-HIGH

Phoenix I.D.: BY76385

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	50	08/03/17	JLI	70 - 130 %
Field Extraction	Completed				08/01/17		SW5035A

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:

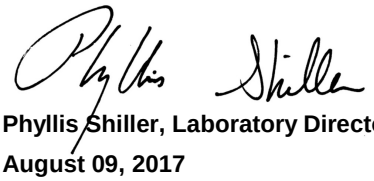
TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director
August 09, 2017
Reviewed and Released by: Maryam Taylor, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

August 09, 2017

QA/QC Data

SDG I.D.: GBY76373

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 396241 (mg/kg), QC Sample No: BY76373 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)													
Mercury - Soil	BRL	0.02	0.07	0.05	NC	79.3	80.1	1.0	88.8			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 396249 (mg/L), QC Sample No: BY76376 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.004	0.004	0.004	NC	95.8			97.4			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	104			104			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	96.6			97.3			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	97.6			98.2			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	98.3			98.3			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	99.2			100			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	90.8			92.4			75 - 125	20
QA/QC Batch 396244 (mg/L), QC Sample No: BY76376 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76382)													
Mercury - Water	BRL	0.0002	<0.0005	<0.0005	NC	98.0			99.9			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 396182 (mg/L), QC Sample No: BY76573 (BY76382)													
ICP Metals - Dissolved													
Arsenic	BRL	0.004	0.003	0.003	NC	92.2			93.8			75 - 125	20
Barium	BRL	0.002	0.255	0.259	1.60	99.1			94.3			75 - 125	20
Cadmium	BRL	0.001	<0.004	<0.001	NC	90.4			84.6			75 - 125	20
Chromium	BRL	0.001	0.001	<0.001	NC	92.0			88.4			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	92.5			87.2			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	92.3			93.6			75 - 125	20
Silver	BRL	0.001	<0.005	<0.001	NC	86.6			87.9			75 - 125	20
QA/QC Batch 396247 (mg/L), QC Sample No: BY76574 (BY76382)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	85.6			79.8			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 396175 (mg/kg), QC Sample No: BY76946 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)													
ICP Metals - Soil													
Arsenic	BRL	0.67	7.72	7.79	0.90	87.8			80.8			75 - 125	30
Barium	BRL	0.33	77.5	77.6	0.10	97.0			99.1			75 - 125	30
Cadmium	BRL	0.33	<0.39	<0.43	NC	92.0			82.9			75 - 125	30
Chromium	BRL	0.33	15.9	15.3	3.80	101			92.3			75 - 125	30
Lead	0.35	0.33	37.4	37.8	1.10	92.1			89.4			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.7	NC	109			93.0			75 - 125	30

QA/QC Data

SDG I.D.: GBY76373

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Silver	BRL	0.33	<0.39	<0.43	NC	91.4			87.9			75 - 125	30
QA/QC Batch 396353 (mg/L), QC Sample No: BY77634 (BY76382)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	<0.004	<0.004	NC	100			99.4			75 - 125	20
Barium	BRL	0.002	0.023	0.023	0	108			105			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	102			102			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	103			102			75 - 125	20
Lead	BRL	0.002	0.003	0.004	NC	102			101			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	95.8			94.6			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	98.4			98.5			75 - 125	20

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

August 09, 2017

QA/QC Data

SDG I.D.: GBY76373

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 396152 (mg/Kg), QC Sample No: BY71220 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	90	83	8.1	91	92	1.1	60 - 120	30
% n-Pentacosane	57	%	68	61	10.9	70	73	4.2	50 - 150	30
Comment:										
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 396077 (ug/Kg), QC Sample No: BY75716 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)										
Semivolatiles - Soil										
1,2,4,5-Tetrachlorobenzene	ND	230	63	65	3.1	67	64	4.6	30 - 130	30
1,2,4-Trichlorobenzene	ND	230	63	66	4.7	67	64	4.6	30 - 130	30
1,2-Dichlorobenzene	ND	180	58	57	1.7	60	57	5.1	30 - 130	30
1,2-Diphenylhydrazine	ND	230	73	66	10.1	63	67	6.2	30 - 130	30
1,3-Dichlorobenzene	ND	230	56	55	1.8	57	54	5.4	30 - 130	30
1,4-Dichlorobenzene	ND	230	58	57	1.7	59	56	5.2	30 - 130	30
2,4,5-Trichlorophenol	ND	230	72	70	2.8	68	69	1.5	30 - 130	30
2,4,6-Trichlorophenol	ND	130	69	69	0.0	66	67	1.5	30 - 130	30
2,4-Dichlorophenol	ND	130	69	71	2.9	70	69	1.4	30 - 130	30
2,4-Dimethylphenol	ND	230	69	68	1.5	74	74	0.0	30 - 130	30
2,4-Dinitrophenol	ND	230	<10	<10	NC	70	69	1.4	30 - 130	30
2,4-Dinitrotoluene	ND	130	76	72	5.4	71	74	4.1	30 - 130	30
2,6-Dinitrotoluene	ND	130	68	65	4.5	62	63	1.6	30 - 130	30
2-Chloronaphthalene	ND	230	73	71	2.8	70	69	1.4	30 - 130	30
2-Chlorophenol	ND	230	65	65	0.0	67	64	4.6	30 - 130	30
2-Methylnaphthalene	ND	230	65	66	1.5	67	66	1.5	30 - 130	30
2-Methylphenol (o-cresol)	ND	230	70	69	1.4	76	75	1.3	30 - 130	30
2-Nitroaniline	ND	330	113	107	5.5	102	98	4.0	30 - 130	30
2-Nitrophenol	ND	230	65	64	1.6	67	64	4.6	30 - 130	30
3&4-Methylphenol (m&p-cresol)	ND	230	69	69	0.0	72	69	4.3	30 - 130	30
3,3'-Dichlorobenzidine	ND	130	72	72	0.0	60	59	1.7	30 - 130	30
3-Nitroaniline	ND	330	97	93	4.2	84	83	1.2	30 - 130	30
4,6-Dinitro-2-methylphenol	ND	230	17	14	19.4	75	69	8.3	30 - 130	30
4-Bromophenyl phenyl ether	ND	230	68	69	1.5	64	65	1.6	30 - 130	30
4-Chloro-3-methylphenol	ND	230	74	73	1.4	73	73	0.0	30 - 130	30
4-Chloroaniline	ND	230	76	74	2.7	63	62	1.6	30 - 130	30
4-Chlorophenyl phenyl ether	ND	230	68	66	3.0	64	63	1.6	30 - 130	30
4-Nitroaniline	ND	230	75	71	5.5	68	67	1.5	30 - 130	30
4-Nitrophenol	ND	230	69	65	6.0	75	76	1.3	30 - 130	30
Acenaphthene	ND	230	75	72	4.1	69	69	0.0	30 - 130	30
Acenaphthylene	ND	130	68	65	4.5	62	62	0.0	30 - 130	30
Acetophenone	ND	230	61	60	1.7	62	59	5.0	30 - 130	30

QA/QC Data

SDG I.D.: GBY76373

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Aniline	ND	330	60	60	0.0	53	55	3.7	30 - 130	30	
Anthracene	ND	230	76	75	1.3	71	71	0.0	30 - 130	30	
Benz(a)anthracene	ND	230	66	65	1.5	64	62	3.2	30 - 130	30	
Benzidine	ND	330	12	11	8.7	<10	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	69	67	2.9	63	62	1.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	71	69	2.9	67	67	0.0	30 - 130	30	
Benzo(ghi)perylene	ND	230	70	68	2.9	63	62	1.6	30 - 130	30	
Benzo(k)fluoranthene	ND	230	75	73	2.7	66	65	1.5	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	59	59	0.0	30 - 130	30	l
Benzyl butyl phthalate	ND	230	69	66	4.4	65	64	1.6	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	70	69	1.4	70	68	2.9	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	58	56	3.5	58	56	3.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	53	49	7.8	52	51	1.9	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	68	64	6.1	51	51	0.0	30 - 130	30	
Carbazole	ND	230	76	74	2.7	68	68	0.0	30 - 130	30	
Chrysene	ND	230	74	71	4.1	67	66	1.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	74	73	1.4	69	69	0.0	30 - 130	30	
Dibenzofuran	ND	230	75	73	2.7	72	71	1.4	30 - 130	30	
Diethyl phthalate	ND	230	76	71	6.8	68	67	1.5	30 - 130	30	
Dimethylphthalate	ND	230	74	69	7.0	67	67	0.0	30 - 130	30	
Di-n-butylphthalate	ND	230	77	73	5.3	68	68	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	69	63	9.1	65	65	0.0	30 - 130	30	
Fluoranthene	ND	230	75	73	2.7	75	75	0.0	30 - 130	30	
Fluorene	ND	230	72	69	4.3	68	68	0.0	30 - 130	30	
Hexachlorobenzene	ND	130	76	74	2.7	67	67	0.0	30 - 130	30	
Hexachlorobutadiene	ND	230	62	64	3.2	66	63	4.7	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	59	63	6.6	26	14	60.0	30 - 130	30	m,r
Hexachloroethane	ND	130	57	55	3.6	54	49	9.7	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	70	68	2.9	63	63	0.0	30 - 130	30	
Isophorone	ND	130	67	64	4.6	65	63	3.1	30 - 130	30	
Naphthalene	ND	230	69	68	1.5	70	68	2.9	30 - 130	30	
Nitrobenzene	ND	130	67	63	6.2	68	65	4.5	30 - 130	30	
N-Nitrosodimethylamine	ND	230	60	57	5.1	58	55	5.3	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	68	66	3.0	69	67	2.9	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75	73	2.7	70	71	1.4	30 - 130	30	
Pentachloronitrobenzene	ND	230	70	70	0.0	66	67	1.5	30 - 130	30	
Pentachlorophenol	ND	230	50	43	15.1	69	67	2.9	30 - 130	30	
Phenanthrene	ND	130	73	72	1.4	66	66	0.0	30 - 130	30	
Phenol	ND	230	71	72	1.4	73	71	2.8	30 - 130	30	
Pyrene	ND	230	77	76	1.3	70	68	2.9	30 - 130	30	
Pyridine	ND	230	43	43	0.0	45	44	2.2	30 - 130	30	
% 2,4,6-Tribromophenol	47	%	73	67	8.6	65	67	3.0	30 - 130	30	
% 2-Fluorobiphenyl	48	%	66	64	3.1	62	61	1.6	30 - 130	30	
% 2-Fluorophenol	44	%	63	64	1.6	66	63	4.7	30 - 130	30	
% Nitrobenzene-d5	42	%	62	59	5.0	63	60	4.9	30 - 130	30	
% Phenol-d5	45	%	66	67	1.5	69	67	2.9	30 - 130	30	
% Terphenyl-d14	51	%	71	70	1.4	63	65	3.1	30 - 130	30	

Comment:

LCSD not reported for this batch

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%)

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 396081 (ug/Kg), QC Sample No: BY76381 2X (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	85	95	11.1	77	74	4.0	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	87	98	11.9	80	81	1.2	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	86	%	98	111	12.4	90	87	3.4	30 - 150	30
% TCMX (Surrogate Rec)	79	%	92	103	11.3	85	81	4.8	30 - 150	30
QA/QC Batch 396197 (ug/L), QC Sample No: BY76573 (BY76382)										
Polychlorinated Biphenyls - Ground Water										
PCB-1016	ND	0.050	75	86	13.7				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	82	94	13.6				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	84	%	84	96	13.3				30 - 150	20
% TCMX (Surrogate Rec)	76	%	81	96	16.9				30 - 150	20
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
QA/QC Batch 396156 (ug/L), QC Sample No: BY76573 (BY76382)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.47	68	75	9.8				30 - 130	20
2-Methylnaphthalene	ND	0.02	57	64	11.6				30 - 130	20
Acenaphthene	ND	0.02	76	80	5.1				30 - 130	20
Acenaphthylene	ND	0.02	71	75	5.5				30 - 130	20
Anthracene	ND	0.02	79	80	1.3				30 - 130	20
Benz(a)anthracene	ND	0.02	77	76	1.3				30 - 130	20
Benzo(a)pyrene	ND	0.02	79	79	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	85	84	1.2				30 - 130	20
Benzo(ghi)perylene	ND	0.02	76	76	0.0				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	83	86	3.6				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.09	89	90	1.1				30 - 130	20
Chrysene	ND	0.02	87	87	0.0				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	88	88	0.0				30 - 130	20
Dibenzofuran	ND	0.05	68	71	4.3				30 - 130	20
Fluoranthene	ND	0.02	75	74	1.3				30 - 130	20
Fluorene	ND	0.02	76	78	2.6				30 - 130	20
Hexachlorobenzene	ND	0.02	84	85	1.2				30 - 130	20
Hexachlorobutadiene	ND	0.05	53	60	12.4				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	44	47	6.6				30 - 130	20
Hexachloroethane	ND	0.05	55	61	10.3				30 - 130	20

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Indeno(1,2,3-cd)pyrene	ND	0.02	81	81	0.0				30 - 130	20
Naphthalene	ND	0.02	51	59	14.5				30 - 130	20
Nitrobenzene	ND	0.05	54	63	15.4				30 - 130	20
Pentachloronitrobenzene	ND	0.09	94	98	4.2				30 - 130	20
Pentachlorophenol	ND	0.19	83	80	3.7				30 - 130	20
Phenanthrene	ND	0.02	74	75	1.3				30 - 130	20
Pyrene	ND	0.02	76	76	0.0				30 - 130	20
Pyridine	ND	0.47	49	51	4.0				30 - 130	20
% 2,4,6-Tribromophenol	74	%	96	99	3.1				15 - 110	20
% 2-Fluorobiphenyl	46	%	70	77	9.5				30 - 130	20
% 2-Fluorophenol	30	%	45	52	14.4				15 - 110	20
% Nitrobenzene-d5	41	%	68	78	13.7				30 - 130	20
% Phenol-d5	44	%	61	71	15.2				15 - 110	20
% Terphenyl-d14	70	%	79	79	0.0				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 396156 (ug/L), QC Sample No: BY76573 (BY76382)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.3	57	65	13.1				30 - 130	20
1,2-Dichlorobenzene	ND	0.94	48	54	11.8				30 - 130	20
1,2-Diphenylhydrazine	ND	1.5	84	85	1.2				30 - 130	20
1,3-Dichlorobenzene	ND	0.94	47	52	10.1				30 - 130	20
1,4-Dichlorobenzene	ND	0.94	47	54	13.9				30 - 130	20
2,4,5-Trichlorophenol	ND	0.94	87	90	3.4				30 - 130	20
2,4,6-Trichlorophenol	ND	0.94	84	88	4.7				30 - 130	20
2,4-Dichlorophenol	ND	0.94	70	79	12.1				30 - 130	20
2,4-Dimethylphenol	ND	0.94	77	82	6.3				30 - 130	20
2,4-Dinitrophenol	ND	0.94	73	75	2.7				30 - 130	20
2,4-Dinitrotoluene	ND	3.3	92	90	2.2				30 - 130	20
2,6-Dinitrotoluene	ND	3.3	79	80	1.3				30 - 130	20
2-Chloronaphthalene	ND	3.3	72	79	9.3				30 - 130	20
2-Chlorophenol	ND	0.94	51	58	12.8				30 - 130	20
2-Methylphenol (o-cresol)	ND	0.94	62	73	16.3				30 - 130	20
2-Nitroaniline	ND	3.3	127	126	0.8				30 - 130	20
2-Nitrophenol	ND	0.94	63	71	11.9				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	0.94	63	70	10.5				30 - 130	20
3,3'-Dichlorobenzidine	ND	4.7	72	68	5.7				30 - 130	20
3-Nitroaniline	ND	4.7	93	92	1.1				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	0.94	81	81	0.0				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.3	92	91	1.1				30 - 130	20
4-Chloro-3-methylphenol	ND	0.94	88	87	1.1				30 - 130	20
4-Chloroaniline	ND	3.3	74	73	1.4				30 - 130	20
4-Chlorophenyl phenyl ether	ND	0.94	77	78	1.3				30 - 130	20
4-Nitroaniline	ND	4.7	86	86	0.0				30 - 130	20
4-Nitrophenol	ND	0.94	82	83	1.2				15 - 130	20
Acetophenone	ND	3.3	58	65	11.4				30 - 130	20
Aniline	ND	3.3	50	54	7.7				30 - 130	20
Benzidine	ND	4.2	29	27	7.1				30 - 130	20
Benzoic acid	ND	9.4	57	62	8.4				30 - 130	20
Benzyl butyl phthalate	ND	1.4	96	92	4.3				30 - 130	20

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bis(2-chloroethoxy)methane	ND	3.3	70	77	9.5				30 - 130	20
Bis(2-chloroethyl)ether	ND	0.94	45	50	10.5				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	0.94	47	51	8.2				30 - 130	20
Carbazole	ND	4.7	95	94	1.1				30 - 130	20
Diethyl phthalate	ND	1.4	91	89	2.2				30 - 130	20
Dimethylphthalate	ND	1.4	88	88	0.0				30 - 130	20
Di-n-butylphthalate	ND	1.4	100	98	2.0				30 - 130	20
Di-n-octylphthalate	ND	1.4	100	98	2.0				30 - 130	20
Isophorone	ND	3.3	68	74	8.5				30 - 130	20
N-Nitrosodimethylamine	ND	0.94	48	56	15.4				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.3	63	69	9.1				30 - 130	20
N-Nitrosodiphenylamine	ND	3.3	81	80	1.2				30 - 130	20
Phenol	ND	0.94	54	64	16.9				15 - 130	20
% 2,4,6-Tribromophenol	83	%	91	90	1.1				15 - 110	20
% 2-Fluorobiphenyl	57	%	68	76	11.1				30 - 130	20
% 2-Fluorophenol	24	%	42	49	15.4				15 - 110	20
% Nitrobenzene-d5	34	%	54	60	10.5				30 - 130	20
% Phenol-d5	35	%	51	60	16.2				15 - 110	20
% Terphenyl-d14	95	%	93	92	1.1				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 396275 (ug/kg), QC Sample No: BY76710 (BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76384, BY76385 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	95	94	1.1	88	86	2.3	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	106	104	1.9	98	96	2.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	100	101	1.0	89	86	3.4	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	97	98	1.0	91	89	2.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	101	100	1.0	94	92	2.2	70 - 130	30
1,1-Dichloroethene	ND	5.0	102	98	4.0	98	95	3.1	70 - 130	30
1,1-Dichloropropene	ND	5.0	101	100	1.0	96	93	3.2	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	104	106	1.9	76	74	2.7	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	94	92	2.2	84	82	2.4	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	108	110	1.8	77	75	2.6	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	102	103	1.0	91	89	2.2	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	110	110	0.0	85	85	0.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	98	99	1.0	88	88	0.0	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	97	98	1.0	84	81	3.6	70 - 130	30
1,2-Dichloroethane	ND	5.0	92	93	1.1	87	85	2.3	70 - 130	30
1,2-Dichloropropane	ND	5.0	97	98	1.0	91	89	2.2	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	104	105	1.0	94	92	2.2	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	100	100	0.0	87	84	3.5	70 - 130	30
1,3-Dichloropropane	ND	5.0	93	93	0.0	85	83	2.4	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	98	99	1.0	83	81	2.4	70 - 130	30
2,2-Dichloropropane	ND	5.0	114	110	3.6	95	94	1.1	70 - 130	30
2-Chlorotoluene	ND	5.0	104	104	0.0	92	90	2.2	70 - 130	30
2-Hexanone	ND	25	103	101	2.0	73	70	4.2	70 - 130	30
2-Isopropyltoluene	ND	5.0	108	108	0.0	97	96	1.0	70 - 130	30
4-Chlorotoluene	ND	5.0	101	101	0.0	88	86	2.3	70 - 130	30
4-Methyl-2-pentanone	ND	25	108	109	0.9	91	91	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GBY76373

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Acetone	ND	10	92	89	3.3	86	87	1.2	70 - 130	30
Acrylonitrile	ND	5.0	113	109	3.6	93	91	2.2	70 - 130	30
Benzene	ND	1.0	99	99	0.0	94	93	1.1	70 - 130	30
Bromobenzene	ND	5.0	100	102	2.0	89	86	3.4	70 - 130	30
Bromochloromethane	ND	5.0	102	101	1.0	94	92	2.2	70 - 130	30
Bromodichloromethane	ND	5.0	102	102	0.0	93	92	1.1	70 - 130	30
Bromoform	ND	5.0	106	105	0.9	88	87	1.1	70 - 130	30
Bromomethane	ND	5.0	110	106	3.7	104	97	7.0	70 - 130	30
Carbon Disulfide	ND	5.0	123	120	2.5	108	106	1.9	70 - 130	30
Carbon tetrachloride	ND	5.0	106	105	0.9	95	95	0.0	70 - 130	30
Chlorobenzene	ND	5.0	91	91	0.0	84	83	1.2	70 - 130	30
Chloroethane	ND	5.0	106	104	1.9	100	97	3.0	70 - 130	30
Chloroform	ND	5.0	101	101	0.0	94	93	1.1	70 - 130	30
Chloromethane	ND	5.0	102	98	4.0	92	91	1.1	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	107	104	2.8	96	95	1.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	102	103	1.0	87	87	0.0	70 - 130	30
Dibromochloromethane	ND	3.0	105	104	1.0	91	91	0.0	70 - 130	30
Dibromomethane	ND	5.0	98	97	1.0	88	88	0.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	116	111	4.4	105	103	1.9	70 - 130	30
Ethylbenzene	ND	1.0	97	97	0.0	91	89	2.2	70 - 130	30
Hexachlorobutadiene	ND	5.0	106	109	2.8	83	84	1.2	70 - 130	30
Isopropylbenzene	ND	1.0	106	107	0.9	97	96	1.0	70 - 130	30
m&p-Xylene	ND	2.0	98	97	1.0	91	90	1.1	70 - 130	30
Methyl ethyl ketone	ND	5.0	103	100	3.0	86	83	3.6	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	118	115	2.6	105	102	2.9	70 - 130	30
Methylene chloride	ND	5.0	87	86	1.2	82	80	2.5	70 - 130	30
Naphthalene	ND	5.0	109	112	2.7	79	79	0.0	70 - 130	30
n-Butylbenzene	ND	1.0	107	106	0.9	90	88	2.2	70 - 130	30
n-Propylbenzene	ND	1.0	103	103	0.0	93	91	2.2	70 - 130	30
o-Xylene	ND	2.0	104	104	0.0	95	95	0.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	107	107	0.0	95	92	3.2	70 - 130	30
sec-Butylbenzene	ND	1.0	108	108	0.0	98	96	2.1	70 - 130	30
Styrene	ND	5.0	102	101	1.0	90	89	1.1	70 - 130	30
tert-Butylbenzene	ND	1.0	106	105	0.9	97	95	2.1	70 - 130	30
Tetrachloroethene	ND	5.0	100	101	1.0	94	92	2.2	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	105	102	2.9	93	93	0.0	70 - 130	30
Toluene	ND	1.0	99	99	0.0	92	92	0.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	101	98	3.0	94	92	2.2	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	98	99	1.0	84	83	1.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	113	112	0.9	86	84	2.4	70 - 130	30
Trichloroethene	ND	5.0	96	97	1.0	95	94	1.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	107	104	2.8	99	98	1.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	114	111	2.7	107	106	0.9	70 - 130	30
Vinyl chloride	ND	5.0	103	100	3.0	97	94	3.1	70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	99	100	1.0	101	99	2.0	70 - 130	30
% Bromofluorobenzene	97	%	102	100	2.0	99	99	0.0	70 - 130	30
% Dibromofluoromethane	106	%	105	99	5.9	103	102	1.0	70 - 130	30
% Toluene-d8	97	%	98	98	0.0	99	99	0.0	70 - 130	30

Comment:

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

QA/QC Data

SDG I.D.: GBY76373

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 396157 (mg/L), QC Sample No: BY76742 (BY76382)											
TPH by GC (Extractable Products) - Ground Water											
Ext. Petroleum H.C. (C9-C36)	ND	0.094	86	88	2.3				60 - 120	30	
% n-Pentacosane	74	%	76	78	2.6				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 396454 (ug/kg), QC Sample No: BY77320 (BY76374 (50X) , BY76375 (50X) , BY76380 (50X))											
Volatiles - Soil											
1,1,2,2-Tetrachloroethane	ND	3.0	104	99	4.9	88	105	17.6	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	110	105	4.7	39	45	14.3	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	96	92	4.3	85	101	17.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	116	109	6.2	45	52	14.4	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	106	102	3.8	78	94	18.6	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	107	100	6.8	75	91	19.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	102	97	5.0	63	77	20.0	70 - 130	30	m
1,3,5-Trimethylbenzene	ND	1.0	106	102	3.8	81	97	18.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	105	101	3.9	69	84	19.6	70 - 130	30	m
1,4-Dichlorobenzene	ND	5.0	103	98	5.0	66	82	21.6	70 - 130	30	m
2-Chlorotoluene	ND	5.0	104	101	2.9	79	98	21.5	70 - 130	30	
2-Isopropyltoluene	ND	5.0	111	106	4.6	77	93	18.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	104	99	4.9	75	93	21.4	70 - 130	30	
Bromobenzene	ND	5.0	104	100	3.9	78	96	20.7	70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	103	5.7	41	54	27.4	70 - 130	30	m
Isopropylbenzene	ND	1.0	108	106	1.9	87	108	21.5	70 - 130	30	
Naphthalene	ND	5.0	111	108	2.7	46	52	12.2	70 - 130	30	m
n-Butylbenzene	ND	1.0	111	106	4.6	64	80	22.2	70 - 130	30	m
n-Propylbenzene	ND	1.0	106	101	4.8	79	99	22.5	70 - 130	30	
p-Isopropyltoluene	ND	1.0	110	106	3.7	74	90	19.5	70 - 130	30	
sec-Butylbenzene	ND	1.0	110	106	3.7	75	92	20.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	108	103	4.7	80	96	18.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	112	109	2.7	84	103	20.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	104	%	102	100	2.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	101	100	1.0	95	91	4.3	70 - 130	30	
Comment:											
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.											

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

Phyllis Shiller, Laboratory Director
August 09, 2017

Wednesday, August 09, 2017

Criteria: CT: RC

State: CT

Sample Criteria Exceedances Report

GBY76373 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BY76373	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	3200	270	1000	1000	ug/Kg
BY76373	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3800	270	1000	1000	ug/Kg
BY76373	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5200	270	1000	1000	ug/Kg
BY76373	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	270	1000	1000	ug/Kg
BY76374	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	2600	280	1000	1000	ug/Kg
BY76374	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	8800	2800	1000	1000	ug/Kg
BY76374	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	2800	1000	1000	ug/Kg
BY76374	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	2800	1000	1000	ug/Kg
BY76374	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	2800	1000	1000	ug/Kg
BY76374	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	530	300	500	500	mg/Kg
BY76375	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	8800	2900	1000	1000	ug/Kg
BY76375	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	2900	290	1000	1000	ug/Kg
BY76375	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	16000	2900	1000	1000	ug/Kg
BY76375	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9800	2900	1000	1000	ug/Kg
BY76375	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	15000	2900	1000	1000	ug/Kg
BY76375	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1500	300	500	500	mg/Kg
BY76376	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
BY76376	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	430	200	200	ug/Kg
BY76376	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1100	750	1000	1000	ug/Kg
BY76376	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	340	200	200	ug/Kg
BY76376	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	600	160	500	500	mg/Kg
BY76376	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	19.8	2.2	10	10	mg/Kg
BY76377	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	370	200	200	ug/Kg
BY76377	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1400	640	1000	1000	ug/Kg
BY76377	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	260	200	200	ug/Kg
BY76377	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
BY76377	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	640	1000	1000	ug/Kg
BY76377	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	640	1000	1000	ug/Kg
BY76377	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1800	640	1000	1000	ug/Kg
BY76377	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1000	670	500	500	mg/Kg
BY76377	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	35.8	1.9	10	10	mg/Kg
BY76378	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.4	0.63	10	10	mg/Kg
BY76379	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	430	200	200	ug/Kg
BY76379	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2200	760	1000	1000	ug/Kg
BY76379	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	310	200	200	ug/Kg
BY76379	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	350	200	200	ug/Kg
BY76379	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1500	760	1000	1000	ug/Kg

Wednesday, August 09, 2017

Criteria: CT: RC

State: CT

Sample Criteria Exceedances Report

GBY76373 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BY76379	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2100	760	1000	1000	ug/Kg
BY76379	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3300	760	1000	1000	ug/Kg
BY76379	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	30.9	2.3	10	10	mg/Kg

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** HRP Associates Inc.

Project Location: CTD403421 ***Project Number:***

Laboratory Sample ID(s): BY76373-BY76385 ***Sampling Date(s):*** 8/1/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8082, 8260, 8270, ETPH

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 DEP 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 section 11.3 of respective RCP methods)**	☐ 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 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ICP Narration, SVOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ 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 the data set?**	☑ 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: MTaylor **Position:** Project Manager

Printed Name: Maryam Taylor **Date:** Wednesday, August 09, 2017

Name of Laboratory Phoenix Environmental Labs, 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

NY # 11301

RCP Certification Report

August 09, 2017

SDG I.D.: GBY76373

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: (BY76376, BY76377, BY76379)
The high % moisture of the samples resulted in elevated reporting limits that exceed the requested criteria for one or more analytes. Some of the analytes were evaluated below the lowest calibration standard in order to achieve the requested reporting levels.

ICP Metals Narration

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

Instrument:

BLUE 08/03/17 06:02 Laura Kinnin, Mike Arsenault, Chemist 08/03/17

BY76382

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ETPH Narration

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

Instrument:

AU-FID1 08/03/17-1 Jeff Bucko, Chemist 08/03/17

BY76373, BY76374, BY76375, BY76377

The initial calibration (ETPH801I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 08/03/17-1 Jeff Bucko, Chemist 08/03/17

BY76379, BY76380, BY76381, BY76382

The initial calibration (ETPH707I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: BY76379, BY76380, BY76381
Preceding CC 803A018 - None.
Succeeding CC 803A031 - Pentacosane -48%L (30%)

AU-FID84 08/03/17-1 Jeff Bucko, Chemist 08/03/17

BY76376, BY76378

The initial calibration (ETPH713I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 396152 (BY71220)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

All LCS recoveries were within 60 - 120 with the following exceptions: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 09, 2017

SDG I.D.: GBY76373

ETPH Narration

All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
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.

Batch 396157 (BY76742)

BY76382

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 30% 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 08/03/17 09:26 Rick Schweitzer, Chemist 08/03/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76382

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 396247 (BY76574)

BY76382

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QC (Site Specific):

Batch 396241 (BY76373)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

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 30% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-

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Certification Report

August 09, 2017

SDG I.D.: GBY76373

Mercury Narration

125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 396244 (BY76376)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76382

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 396175 (Samples: BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381): -----

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (Soil- Lead(BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380))

Instrument:

ARCOS 08/02/17 07:50 Laura Kinnin, Mike Arsenault, Chemist 08/02/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 08/03/17 06:55 Laura Kinnin, Mike Arsenault, Chemist 08/03/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

BLUE 08/03/17 06:02 Laura Kinnin, Mike Arsenault, Chemist 08/03/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.

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Certification Report

August 09, 2017

SDG I.D.: GBY76373

ICP Metals Narration

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

BLUE 08/04/17 10:15 Laura Kinnin, Mike Arsenault, Chemist 08/04/17

BY76382

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 396175 (BY76946)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 396182 (BY76573)

BY76382

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 396353 (BY77634)

BY76382

All LCS recoveries were within 75 - 125 with the following exceptions: None.

QC (Site Specific):

Batch 396249 (BY76376)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD1 08/02/17-1 Adam Werner, Chemist 08/02/17

BY76373, BY76374, BY76375, BY76382

The initial calibration (PC718AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC718BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD5 08/03/17-1 Adam Werner, Chemist 08/03/17

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SDG I.D.: GBY76373

PCB Narration

BY76376, BY76379

The initial calibration (PC726AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC726BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD8 08/03/17-1 Adam Werner, Chemist 08/03/17

BY76377, BY76378, BY76380, BY76381

The initial calibration (PC726AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC726BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 396197 (BY76573)

BY76382

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 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.

QC (Site Specific):

Batch 396081 (BY76381)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.

SVOA Narration

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

QC Batch 396077 (Samples: BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381): -----

The LCS/LCSD recovery for one or more analytes is below the method criteria. A low bias for these analytes is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Benzoic Acid, Benzidine)

QC Batch 396156 (Samples: BY76382): -----

The LCS/LCSD recovery for one or more analytes is below the method criteria. A low bias for these analytes is possible. (Benzidine)

Instrument:

CHEM05 08/02/17-1 Damien Drobinski, Chemist 08/02/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

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August 09, 2017

SDG I.D.: GBY76373

SVOA Narration

Initial Calibration Verification (CHEM05/SPLIT_0718):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 34% (20%), 2-Nitroaniline 25% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.070 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0802_04A-SPLIT_0718):
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: 2-Nitrophenol 0.075 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM06 08/07/17-1 Damien Drobinski, Chemist 08/07/17

BY76382

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

Initial Calibration Verification (CHEM06/SPLIT_0724):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 61% (20%), 4,6-Dinitro-2-methylphenol 31% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.061 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/0807_02-SPLIT_0724):
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: 2,4-Dinitrophenol 49%H (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 49%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.056 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 08/03/17-1 Damien Drobinski, Chemist 08/03/17

BY76374, BY76375

Initial Calibration Verification (CHEM29/SPLIT_0718):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0803_04A-SPLIT_0718):
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.
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

August 09, 2017

SDG I.D.: GBY76373

SVOA Narration

QC (Batch Specific):

Batch 396077 (BY75716)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(17%), Benzidine(12%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(14%), Benzidine(11%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
LCSD not reported for this batch
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%)

Batch 396156 (BY76573)

BY76382

All LCS recoveries were within 30 - 130 with the following exceptions: Benzidine(29%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Benzidine(27%)
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%)

SVOASIM Narration

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

Instrument:

CHEM04 08/04/17-1 Damien Drobinski, Chemist 08/04/17

BY76382

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

Initial Calibration Verification (CHEM04/SIM_0626):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.288 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/0804_02-SIM_0626):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
96% 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.
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

August 09, 2017

SDG I.D.: GBY76373

SVOASIM Narration

QC (Batch Specific):

Batch 396156 (BY76573)

BY76382

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? Yes.

Instrument:

CHEM02 08/02/17-2 Michael Hahn, Chemist 08/02/17

BY76382, BY76383

Initial Calibration Verification (CHEM02/VT-P0724):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromomethane 24% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.027 (0.05), 2-Hexanone 0.059 (0.1), 4-Methyl-2-pentanone 0.071 (0.1), Acetone 0.042 (0.1), Acrylonitrile 0.047 (0.05), Bromoform 0.066 (0.1), Methyl ethyl ketone 0.055 (0.1), Tetrahydrofuran (THF) 0.038 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0802P26-VT-P0724):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
96% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 1,2,3-Trichlorobenzene 37%H (30%), Bromomethane 35%L (30%), Naphthalene 35%H (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.031 (0.05), Bromoform 0.074 (0.1), Tetrahydrofuran (THF) 0.046 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM26 08/02/17-2 Jane Li, Chemist 08/02/17

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76384, BY76385

Initial Calibration Verification (CHEM26/VT-0727):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/0802_18-VT-0727):
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.

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RCP Certification Report

August 09, 2017

SDG I.D.: GBY76373

VOA Narration

The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM26 08/03/17-1 Jane Li, Chemist 08/03/17

BY76374, BY76375, BY76380

Initial Calibration Verification (CHEM26/VT-0727):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/0803_04-VT-0727):
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.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 396275 (BY76710)

BY76373, BY76374, BY76375, BY76376, BY76377, BY76378, BY76379, BY76380, BY76381, BY76384, BY76385

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 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 396454 (BY77320)

BY76374, BY76375, BY76380

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 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
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 in this delivery group were received at 4.1°C.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 4.1 °C Pg of

Data Delivery:
[ ] Fax #:
[X] Email: EDD@HRPAssociates.com

Customer: HRP Associates
Address: 999 Oronoque Ln
Stratford, CT 06614

Project: CTD 403421
Report to: Walt Sepelak
Invoice to: CTDAS Pricing, NO ISR Form, Bill TO HRP
Phone #: 203 380 1395
Fax #:

Project P.O: —

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Date: 8/1/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	8260 VOCs	8270 SVOCs	CT ETPH	Total RCRA-8	SPLP RCRA-8	PCBs	8260 VOCs	8270 SVOCs	CT ETPH	Total RCRA-8	Diss RCRA-8	PCBs	Soil VOA Vials [ ] methanol [X] H2O	GL Soil container (9) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)	
76373	SB-1 (0-2')	S	8/1/17	825	X	X	X	X	X	X							X	X									
76374	SB-2 (0-2')			833													3	1									
76375	SB-3 (0-2')			839																							
(X) 76376	SB-4 (0-2')			1007																							
(X) 76377	SB-5 (0-2')			1010																							
76378	SB-6 (0-2')			1015																							
76379	SB-7 (0-2')			1019																							
76380	SB-8 (0-2')			1033																							
76381	SB-9 (0-2')			1055																							
76382	MW-1	GW		1130							X	X	X	X	X	X			3	3	1		1				LAB TO FILTER DISS. Metals
*76383	TB Water	S/Water		—	X	X	X	X	X	X	X	X	X	X	X	X	3	2	2								
76384	TB-LOW																										

~~76385 TB-HIGH~~

Relinquished by: **Accepted by:**

Date	Time
8/2/17	834
8/2/17	1047

Comments, Special Requirements or Regulations:
PCBs - RLs on each Aroclor 0.1 one (X) low level voa rmd broken ppm
Lab to filter Dissolved Metals
*VOC only per Jessica (LB)

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard 5 day
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[X] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[X] Other EDD

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other

* SURCHARGE APPLIES