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TASK 210
SUBSURFACE SITE INVESTIGATION

REHABILITATION OF BRIDGE NO. 00196 – INTERSTATE 95 OVER U.S. ROUTE 1
BRANFORD, CONNECTICUT

Prepared For:

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

Prepared By:

HRP Associates, Inc.
999 Oronoque Lane, 2nd Floor
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CT DOT Assignment No. 416-5449
CT DOT Project No. 0014-0185
HRP #: CTD4048.21

Issued On: March 23, 2018

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General Information

Project/Site Information:

Rehabilitation of Bridge No. 00196
Interstate 95 Over U.S. Route 1
Branford, Connecticut

Client Information:

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

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Project Number: CTD4048.21
CT DOT Assignment No. 416-5449
CT DOT Project No. 0014-0185

Report Date: 3/23/2018

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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 the planned reconstruction of Bridge No. 00196 in Branford, CT. The attached Figure 1 depicts the site location topographically. The project limits are illustrated on Figures 2a and 2b.

The purpose of this Task 210 was to verify the presence or absence of contamination in subsurface 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 assessed 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 January 18, 2018.

2.0 SITE DESCRIPTION AND HISTORY

CT DOT is currently planning reconstruction activities of Bridge No. 00196 in Branford, including improvements to U.S. Route 1 beneath the bridge. The project construction limits are illustrated on Figures 2a and 2b.

No prior environmental investigations are known to have been conducted within the project limits at the site. A Task 210 Work Plan was prepared for the site in January 2018 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

The site surficial materials have been mapped as Till (*nonsorted, generally nonstratified mixtures of grain-sizes ranging from clay to large boulders*) (Surficial Materials Map of Connecticut by Stone, Schafer, London and Thompson, 2005 accessed via The University of Connecticut's Connecticut Environmental Conditions Online, www.cteco.uconn.edu).

Bedrock beneath the project corridor has been mapped as Waterford Group (light to dark, medium-grained gneiss) and Branford Gneiss (gray to white, well-foliated granitic gneiss) undivided (Bedrock Geological Map of Connecticut by John Rodgers, 1985 accessed via The University of Connecticut's Connecticut Environmental Conditions Online, www.cteco.uconn.edu).

Direct evidence of bedrock was not encountered during Task 210 activities, however soil boring refusal was encountered between three (3) and 11.5 feet below grade (fbg).

3.2 Hydrogeology

According to the Connecticut Department of Energy and Environmental Protection's (CT DEEP) Water Quality Standards (WQS), the groundwater classification of the corridor study area is "GA". A "GA" groundwater classification is defined as follows:

Class "GA" groundwater may be suitable for human consumption without treatment. Designated uses include existing private and potential public or private supplies of water suitable for drinking without treatment; baseflow for hydraulically connected surface water bodies. Discharges are restricted to treated domestic sewage, certain agricultural wastes, certain water treatment wastewaters, discharge from septage treatment facilities subject to stringent treatment and discharge requirements, and other wastes of natural origin that easily biodegrade and present no threat to groundwater.

The site is located in the Branford River regional drainage basin. The Branford River is mapped as Class "A" in the vicinity of the site. According to the CT DEEP WQS, class "A" designated uses include potential drinking water supply; fish and wildlife habitat; recreational use; agricultural and industrial supply 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. (CT Department of Environmental Protection, Water Management Bureau. Water Quality Classifications Map, accessed via The University of Connecticut's Connecticut Environmental Conditions Online, www.cteco.uconn.edu, and Water Quality Standards Adopted October 10, 2013).

Groundwater was encountered between approximately five (5) and ten (10) feet below grade (fbg) during Task 210 activities.

4.0 PRELIMINARY ACTIVITIES

4.1 Health and Safety Plan (HASP) Preparation

HRP developed a project-specific health and Safety Plan (HASP) for the Task 210. The HASP addresses the health and safety practices employed by HRP staff and subcontractors participating in the installation of soil borings and monitoring wells at the site. The HASP was developed in accordance with HRP's Corporate Safety and Health Program as required under OSHA's Hazardous Waste Operations Standard (29 CFR 1910.120). The HASP was developed to establish minimum standards for project oversight and environmental sampling activities to protect the health and safety of HRP personnel and HRP's subcontractors. HRP site personnel have received the required level of training and field experience as required under subpart (e) of the Standard, and have received medical examinations in accordance with HRP's medical surveillance program as required under subpart (f) of the Standard. On-site HRP personnel and subcontractors were required to review and sign the HASP prior to field work commencement.

4.2 Sample Location Marking and Utility Clearance

Prior to the commencement of drilling activities, HRP personnel met with a DOT Environmental Compliance representative and the selected drilling contractor to locate and mark proposed soil boring locations in the field. Upon completion, Connecticut Call Before You Dig Services (CBYD) was contacted to arrange for a mark-out of public utility lines (CBYD Ticket #20180702209). As an additional precaution, CorBuilt, LLC of Canterbury, Connecticut was contracted to clear proposed soil boring locations using ground penetrating radar (GPR) and electromagnetic induction (EMI) technologies. Each boring location was approved prior to its installation.

4.3 Traffic Control

Town of Branford traffic control officers were utilized for the project to close lanes and direct traffic around the project activities.

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 Geoprobe® and Manual Hand Soil Boring Installation and Sample Collection

A total of six (6) Geoprobe® soil borings (SB-1 to SB-6) were installed on March 1, 2018. Four (4) soil borings were located within the roadway and two (2) soil borings were located in the grass-covered right-of-way adjacent to the roadway. Drilling work was performed by Complete Environmental Services, LLC of Bethany, Connecticut (CES) under HRP supervision using a Geoprobe® 7730 direct-push drill rig. Soil borings were completed by advancing a 5-foot long stainless steel Macro-Core® sampling tube equipped with disposable acetate liners. Final depths ranged from approximately 3.5 to 15 fbg. Due to shallow depth refusal encountered at locations SB-5 and SB-6, a second installation attempt was made approximately five (5) feet away from each original location. Similar refusal depths were encountered at these offset locations.

In addition to the soil borings compelted with the drill rig, two (2) hand borings were installed by utilizing a manual slide hammer. The hand borings were installed in areas that were inaccessible to the Geoprobe® drill rig. Hand borings also utilized a 5-foot long stainless steel sampling tube equipped with disposable acetate liners. Hand boring depths were restricted to shallow soils due to equipment limitations.

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.

Elevated PID readings were not observed during field screening activities.

Laboratory submittal samples were chosen based on field observations and anticipated construction project disturbance depths. A total of fourteen (14) samples were collected and submitted to the laboratory for analysis. Two (2) samples were collected from each Geoprobe® boring representing shallow depth (0-2 fbg) and moderate depth (5-7 fbg). Sample collection depths in the roadway were proposed at three (3) intervals (1-3 fbg, 5-7 fbg, and 10-12 fbg);

however, only one (1) 10-12 fbg interval sample was collected (SB-4) due to shallow refusal. One (1) sample was collected from each hand boring location (0-2 fbg).

Samples were placed in laboratory-provided and preserved glassware, and stored on ice in coolers prior to receipt by the lab. The samples were 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);
- Poly-chlorinated biphenyls (PCBs) via EPA Method 8082; and
- Total Pesticides (surface samples only) and SPLP Pesticides (in the grass right-of-way).

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.

All soil borings were backfilled upon completion with residual cuttings and supplemented with bagged silica sand and/or hydrated bentonite and asphalt was patched where applicable.

6.0 GROUNDWATER INVESTIGATION METHODS

6.1 Temporary Monitoring Well Installation

One (1) temporary groundwater monitoring well (MW-1) was installed at soil boring location SB-1 to assess groundwater conditions at the site. Due to refusal depths encountered, only one (1) proposed well installation was achieved. The temporary well was constructed using 1-inch poly-vinyl chloride well screen/riser pipe placed into the open borehole following advancement into the water table (final depth was approximately 14.5 fbg). The location of MW-1 is illustrated on Figure 2a.

6.2 Temporary Monitoring Well Sampling

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

Observations noted during MW-1 sampling include the following:

- Groundwater was encountered at approximately 2 fbg.
- The groundwater was highly turbid. An extended duration of purging produced limited improvement on clarity prior to sample collection.

The groundwater sample 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 (total and dissolved analysis, methodology varies by metal); and
- PCBs via EPA Method 8082.

For dissolved metals analysis, a groundwater sample was collected in an unpreserved plastic container and submitted to Phoenix for laboratory filtering.

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-133q-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 determine proper handling and disposal management procedures. Certain compounds do not have established numeric criteria in the RSRs. In this case, the results were compared to numeric criteria referenced in the CT DEEP Technical Support Document: Recommended Numeric Criteria for Additional Polluting Substances (APS) and Certain Alternative Criteria (12/10/2015, Rev. 1/27/2017).

The applicable RSR standards based on general site location are as follows:

Soil

- Residential Direct Exposure Criteria (RDEC)
- GA Pollutant Mobility Criteria (GA PMC)
- Groundwater Protection Criteria (GWPC) (leachable pesticides)

Groundwater

- GWPC
- Surface water Protection Criteria (SWPC)
- Residential Groundwater Volatilization Criteria (RGWVC)

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. A summary of laboratory detections is provided as follows:

VOCs
VOCs were not detected above laboratory reporting limits in any samples submitted for laboratory analysis.

SVOCs
Chrysene was detected in exceedance of applicable RSR numeric standards in sample HB-2 (0-2'). Minor concentrations of other select SVOCs were also detected below applicable RSR numeric standards in sample HB-2 (0-2'). SVOCs were not detected above the laboratory reporting limits in any other sample submitted for laboratory analysis.

ETPH
ETPH was not detected above laboratory reporting limits in any of the samples submitted for laboratory analysis.

RCRA-8 Metals
Minor concentrations of select total RCRA-8 metals were detected via mass analysis in each of the analyzed soil samples. All of the concentrations were below applicable RSR numeric standards.

Leachable lead was detected in exceedance of applicable RSR numeric standards in SB-1 (0-2'). Minor concentrations of other leachable metals were also detected in SB-1 (0-2'), SB-1 (5-7'), SB-2 (0-2'), SB-2 (5-7'), SB-3 (1-3'), SB-4 (1-3'), SB-4 (5-7'), SB-4 (10-11.5'), SB-5 (1-3'), HB-1 (0-2'), and HB-2 (0-2') below applicable RSR numeric standards.

Pesticides
Minor concentrations of select total pesticides were detected below applicable RSR numeric standards in SB-1 (0-2') and HB-2 (0-2'). Total pesticides were not detected above laboratory reporting limits in any other sample submitted for laboratory analysis.

SPLP pesticides were not detected above laboratory reporting limits in any of the samples submitted for laboratory analysis.

PCBs
PCBs were not detected above laboratory reporting limits in any of the samples submitted for laboratory analysis.

7.2.2 Groundwater Sample Analytical Results

Data from groundwater samples collected from temporary monitoring well MW-1 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
Minor concentrations of select VOCs were detected in MW-1 below applicable RSR numeric standards.

SVOCs
Minor concentrations of select SVOCs were detected in MW-1 below applicable RSR numeric standards.

ETPH
ETPH was not detected above laboratory reporting limits in MW-1.

RCRA-8 Metals
Arsenic, barium, cadmium, chromium, and lead were detected via mass analysis in MW-1 at concentrations exceeding the applicable RSR numeric standards. The remaining total RCRA-8 metals were not detected above laboratory detection limits in MW-1.

Minor concentrations of dissolved barium and chromium were detected in MW-1 below applicable RSR numeric standards.

PCBs
PCBs were not detected in MW-1.

7.2.3 Quality Assurance/Quality Control (QA/QC)

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

The trip blanks were laboratory prepared prior to job commencement and were stored with the daily 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 water trip blank or the soil trip blank (TB-L or TB-H) 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 and the following was noted:

- In the groundwater sample, laboratory minimum detection limits for select VOC compounds exceeded their associated RSR numeric standards. Since the particular compounds are not considered primary compounds within those parameter groups and none of the more common VOC compounds were not reported in exceedance of RSR standards, those compounds are not considered a potential exceedance.
- The laboratory initially reported the results for PCBs in groundwater as non-detect, less than 0.5 µg/l per individual PCB aroclor. Because the sum of the individual minimum detection limits exceeded the RSR numeric standard for total PCBs, HRP had the lab re-

analyzed the sample with lower minimum detection limits, even though the sample had slightly exceeded the seven (7)-day hold time. PCBs were not detected in the reanalysis using the lowered detection limits.

In summary, HRP did not note any issues or discrepancies 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" on all of the reports. 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 reconstruction of Bridge No. 00196 in Branford, 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:

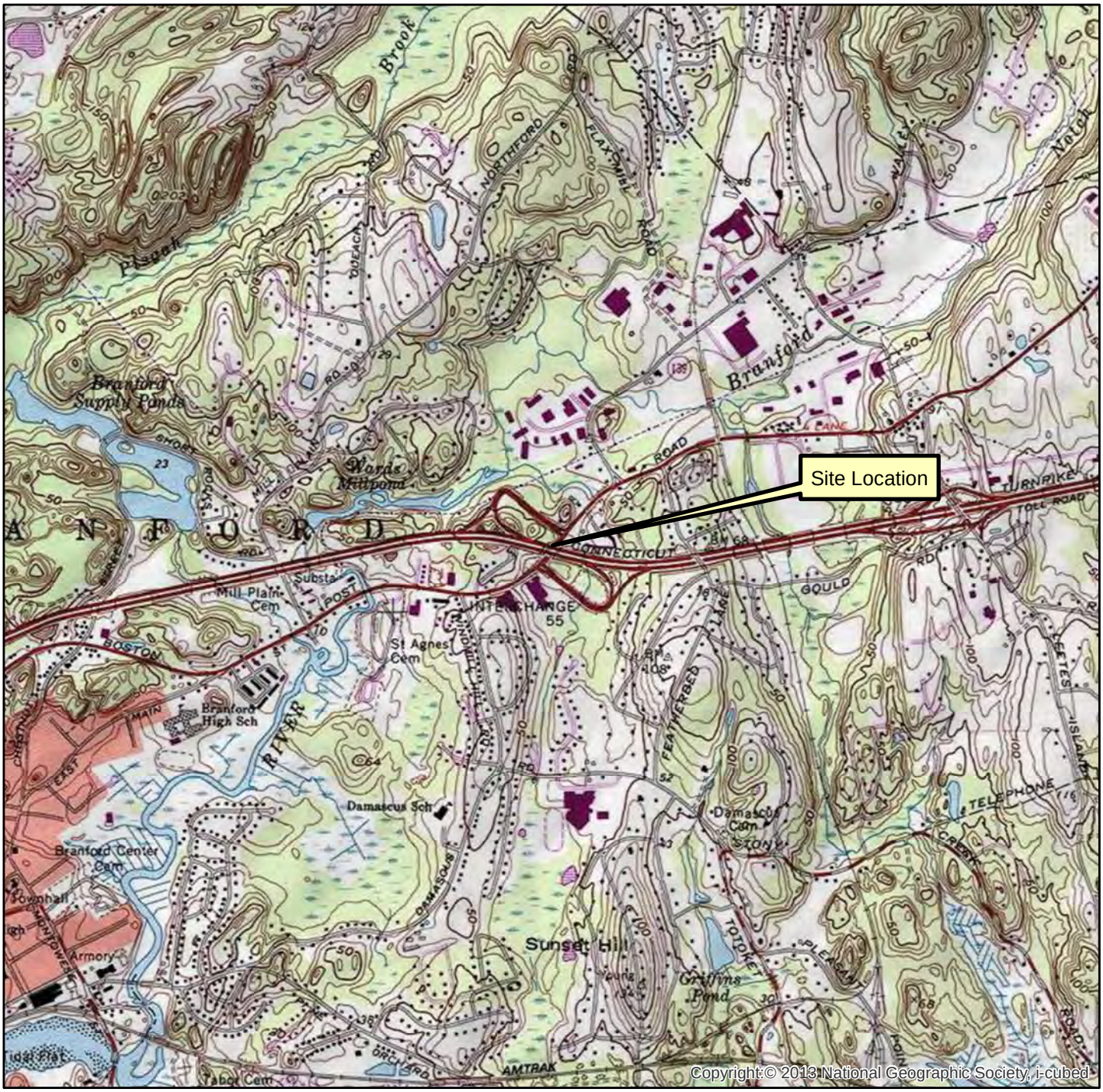
- Soils within the project limits were found to be relatively free of contaminant impacts. However, select SVOCs (chrysene) and leachable lead were identified at two separate locations (SB-1, HB-2) in exceedance of the applicable RSR numeric standards. Additionally, low-level concentrations of pesticides were also identified at these two locations. Shallow soils in the vicinity of these two borings will require special handling and/or disposal practices during construction activities;

- Groundwater within the project limits exhibited select total metals in exceedance of applicable RSR numeric standards as well as select low-level VOCs, SVOCs and dissolved metals below applicable RSR numeric standards. It should be noted that elevated turbidity was an issue at the time of sampling due to the grab-sample techniques employed and entrained sediment appear to have unduly influenced contaminant concentrations. Further evidence of the turbidity influence is shown by the significant reduction of metals concentrations through dissolved metals analysis following lab filtration;

- Groundwater results were 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. Total lead exceeded the sanitary sewer discharge general permit limits and the surface water discharge general permit limits; Therefore, any groundwater remediation wastewater could not be discharged without treatment. It is noted that this comparison should be considered cursory and not directly representative of discharge sample results, as filtration and/or sediment settling could create acceptable discharge conditions; and

- 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



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Feet

1 inch = 2,000 feet

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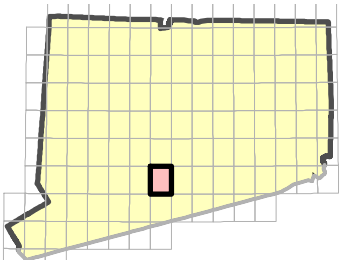

USGS Quadrangle Information
Quad ID: 41072-C7
Name: Branford, Connecticut
Date Pub: 1985
Date Rev: 1982
Map Edit: 1

Figure 1
Site Location
CONNDOT
Bridge No. 00196 - I-95
Over US Route 1
Branford, Connecticut
HRP # CTD4048.21
Scale 1" = 2,000'

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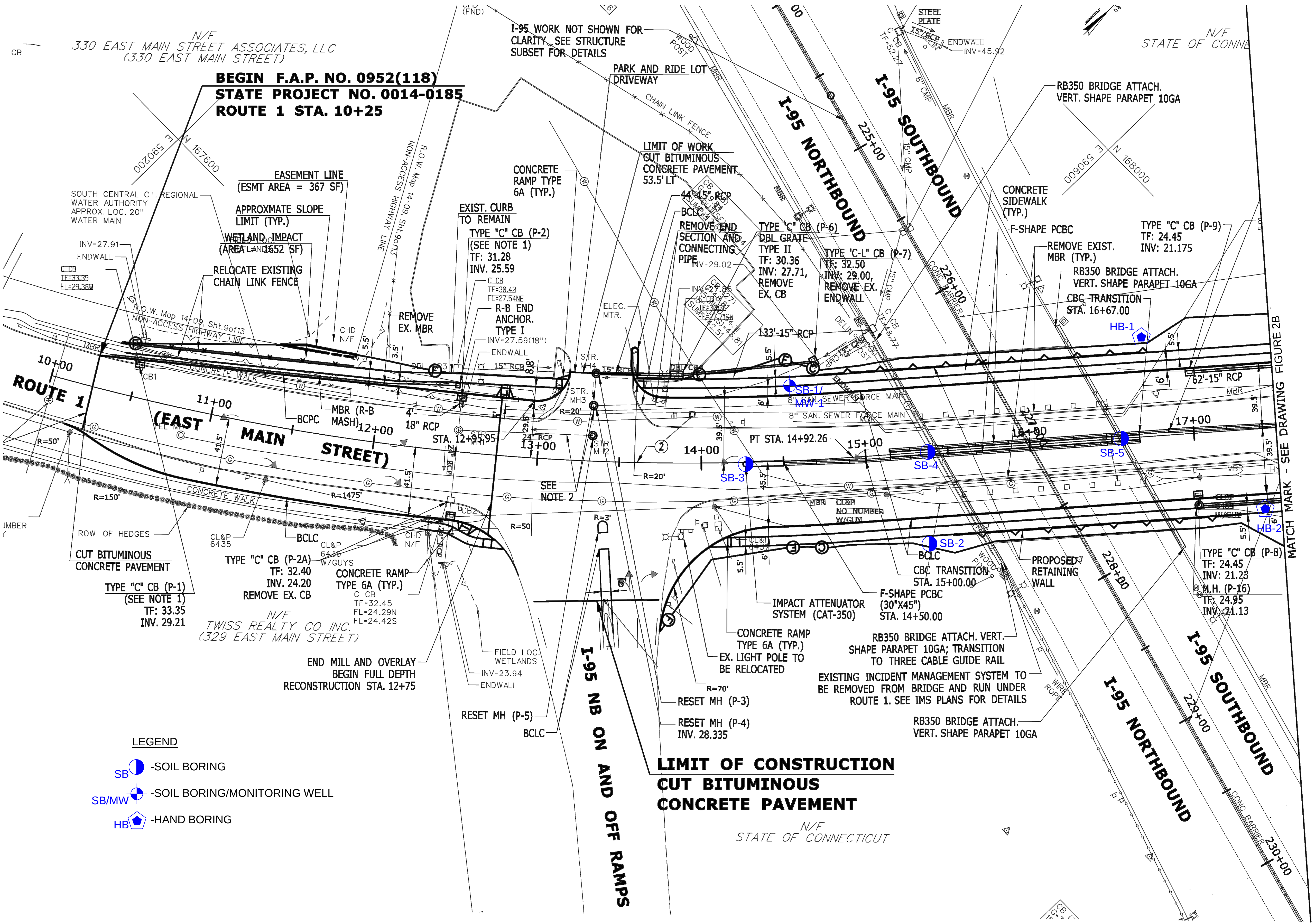
Path: V:\Data\C\CONND - CONNECTICUT DEPARTMENT OF TRANSPORTATION\Branford - Branford\BRIDGE NO 00196 - I-95 OVER US ROUTE 1\CTD404821\GIS\Site Location.mxd


N/F
330 EAST MAIN STREET ASSOCIATES, LLC
(330 EAST MAIN STREET)
BEGIN F.A.P. NO. 0952(118)
STATE PROJECT NO. 0014-0185
ROUTE 1 STA. 10+25
SOUTH CENTRAL CT. REGIONAL WATER AUTHORITY APPROX. LOC. 20" WATER MAIN
EASEMENT LINE (ESMT AREA = 367 SF)
APPROXMATE SLOPE LIMIT (TYP.)
WETLAND IMPACT (AREA = 1652 SF)
RELOCATE EXISTING CHAIN LINK FENCE
INV-27.91
ENDWALL
R.O.W. Map 14-09, Sht.9of13 NON-ACCESS HIGHWAY LINE
I-95 WORK NOT SHOWN FOR CLARITY. SEE STRUCTURE SUBSET FOR DETAILS
PARK AND RIDE LOT DRIVEWAY
CHAIN LINK FENCE
CONCRETE RAMP TYPE 6A (TYP.)
EXIST. CURB TO REMAIN
TYPE "C" CB (P-2) (SEE NOTE 1) TF: 31.28 INV. 25.59
R-B END ANCHOR. TYPE I
INV=27.59(18")
ENDWALL
REMOVE EX. MBR
LIMIT OF WORK CUT BITUMINOUS CONCRETE PAVEMENT 53.5' LT
44'-15" RCP
BCLC
REMOVE END SECTION AND CONNECTING PIPE
INV=29.02
TYPE "C" CB (P-6) DBL GRATE TYPE II TF: 30.36 INV: 27.71, REMOVE EX. CB
TYPE 'C-L' CB (P-7) TF: 32.50 INV: 29.00, REMOVE EX. ENDWALL
133'-15" RCP
I-95 NORTHBOUND
I-95 SOUTHBOUND
225+00
226+00
227+00
228+00
229+00
230+00
STEEL PLATE
15" RCP
ENDWALL
INV=45.92
N/F
STATE OF CONNE
RB350 BRIDGE ATTACH. VERT. SHAPE PARAPET 10GA
CONCRETE SIDEWALK (TYP.)
F-SHAPE PCBC
REMOVE EXIST. MBR (TYP.)
TYPE "C" CB (P-9) TF: 24.45 INV: 21.175
RB350 BRIDGE ATTACH. VERT. SHAPE PARAPET 10GA
CBC TRANSITION STA. 16+67.00
HB-1
62'-15" RCP
SB-1/ MW-1
8" SAN. SEWER FORCE MAIN
SB-3
SB-4
SB-5
SB-2
HB-2
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
ROUTE 1 (EAST MAIN STREET)
BCPC
MBR (R-B MASH)
18" RCP
STA. 12+95.95
24" RCP
PT STA. 14+92.26
SEE NOTE 2
R=50'
R=150'
R=1475'
R=20'
R=3'
CONCRETE WALK
ROW OF HEDGES
CUT BITUMINOUS CONCRETE PAVEMENT
TYPE "C" CB (P-1) (SEE NOTE 1) TF: 33.35 INV. 29.21
TYPE "C" CB (P-2A) TF: 32.40 INV. 24.20 REMOVE EX. CB
BCLC
CONCRETE RAMP TYPE 6A (TYP.)
N/F
TWISS REALTY CO INC.
(329 EAST MAIN STREET)
END MILL AND OVERLAY BEGIN FULL DEPTH RECONSTRUCTION STA. 12+75
FIELD LOC. WETLANDS
INV=23.94
ENDWALL
RESET MH (P-5)
BCLC
I-95 NB ON AND OFF RAMPS
IMPACT ATTENUATOR SYSTEM (CAT-350)
CONCRETE RAMP TYPE 6A (TYP.)
EX. LIGHT POLE TO BE RELOCATED
R=70'
RESET MH (P-3)
RESET MH (P-4) INV. 28.335
LIMIT OF CONSTRUCTION
CUT BITUMINOUS
CONCRETE PAVEMENT
N/F
STATE OF CONNECTICUT
CBC TRANSITION STA. 15+00.00
F-SHAPE PCBC (30"X45") STA. 14+50.00
PROPOSED RETAINING WALL
RB350 BRIDGE ATTACH. VERT. SHAPE PARAPET 10GA; TRANSITION TO THREE CABLE GUIDE RAIL
EXISTING INCIDENT MANAGEMENT SYSTEM TO BE REMOVED FROM BRIDGE AND RUN UNDER ROUTE 1. SEE IMS PLANS FOR DETAILS
RB350 BRIDGE ATTACH. VERT. SHAPE PARAPET 10GA
TYPE "C" CB (P-8) TF: 24.45 INV: 21.23
M.H. (P-16) TF: 24.95 INV: 21.13
MATCH MARK - SEE DRAWING FIGURE 2B
LEGEND
SB -SOIL BORING
SB/MW -SOIL BORING/MONITORING WELL
HB -HAND BORING

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NORTH

0 30' 60'

REVISIONS	
NO.	DATE

DESIGNED BY: JAB2
DRAWN BY: BOB
REVIEWED BY: WAS

ISSUE DATE: 03/08/2018
PROJECT NUMBER: CTD4048.21
SHEET SIZE: 11"X17"

SITE PLAN WITH SOIL BORING LOCATIONS

BRIDGE NO. 00196
I-95 OVER US ROUTE 1
BRANFORD, CONNECTICUT

SHEET NO.
Fig. 2a

DRAWING NAME: V:\Data\C\CONND - CONNECTICUT DEPARTMENT OF TRANSPORTATION\Branford - Branford\BRIDGE NO 00196 - I-95 OVER US ROUTE 1 (CTD4048.21)\CAD\PROPOSED BORINGS AND MONITORING WELLS.dwg
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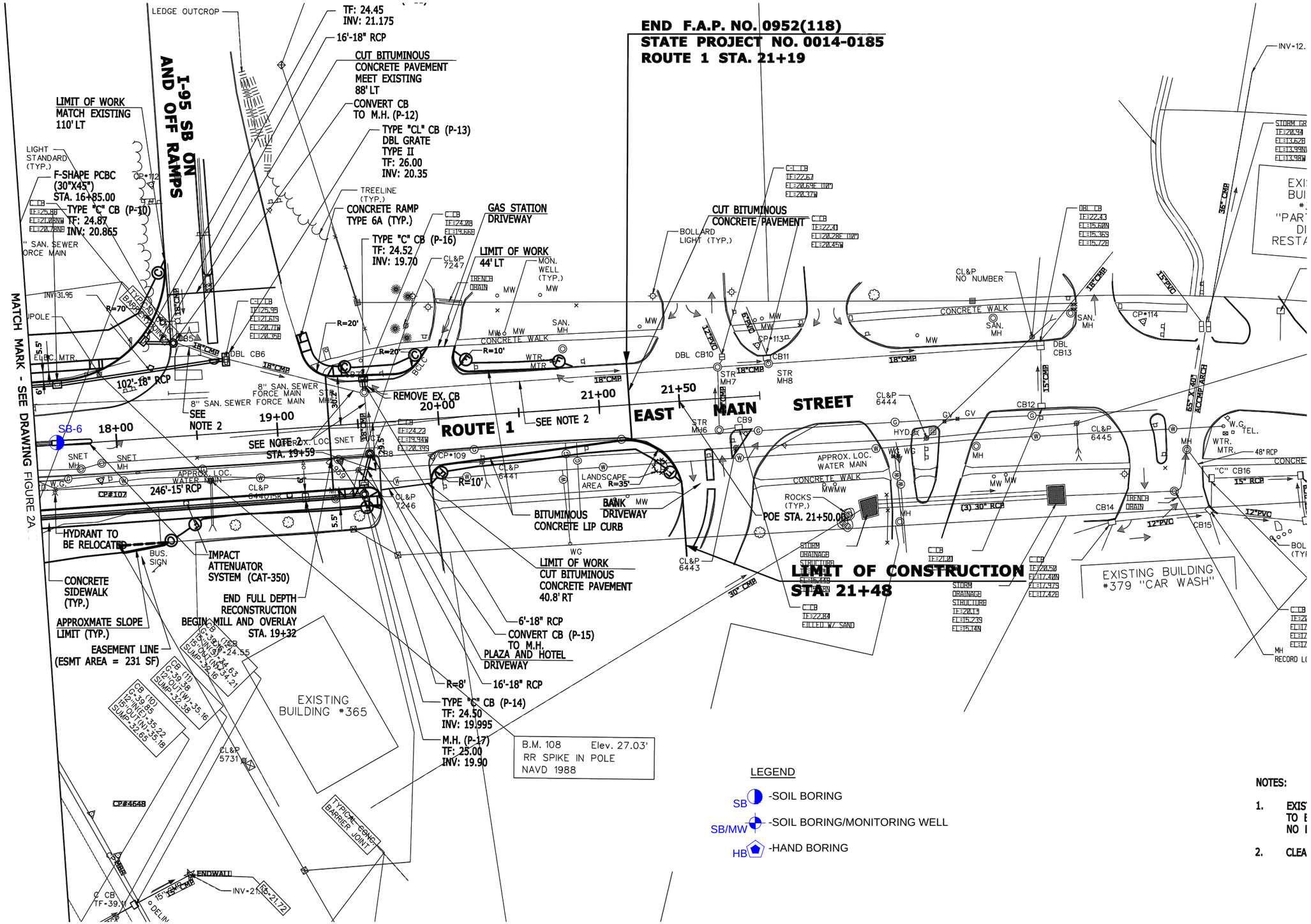

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NORTH

0 30' 60'

REVISIONS		
NO.	DATE	

DESIGNED BY: JAB2
DRAWN BY: BOB
REVIEWED BY: WAS

ISSUE DATE: 03/08/2018
PROJECT NUMBER: CTD4048.21
SHEET SIZE: 11"x17"

SITE PLAN WITH SOIL BORING LOCATIONS

BRIDGE NO. 00196
I-95 OVER US ROUTE 1
BRANFORD, CONNECTICUT

SHEET NO.

Fig. 2b

TABLES

Table 1
Summary of Soil Analytical Results
Rehabilitation of Bridge No. 00196 - I-95 Over U.S. Route 1
HRP# CTD4048.21

Lab Report No.:						GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891	GBZ96891
Lab Sample No.:						BZ96891SITE	BZ96892SITE	BZ96893SITE	BZ96894SITE	BZ96895SITE	BZ96896SITE	BZ96897SITE	BZ96898SITE	BZ96899SITE	BZ96900SITE	BZ96901SITE	BZ96902SITE	BZ96903SITE	BZ96904SITE
HRP Sample No.:						**SB-1 (0-2')**	**SB-1 (5-7')**	**SB-2 (0-2')**	**SB-2 (5-7')**	**SB-3 (1-3')**	**SB-3 (5-7')**	**SB-4 (1-3')**	**SB-4 (5-7')**	**SB-4 (10-11.5')**	**SB-5 (1-3')**	**SB-6 (1-3')**	**SB-6 (5-7')**	**HB-1 (0-2')**	**HB-2 (0-2')**
Date Collected:						**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**	**03/01/18**
SOIL-Metals	**CAS #**		**2015/2013 - Res DEC**	.	.														
Arsenic	7440-38-2	mg/kg	10			2.63	2.01	2.30	2.22	2.66	3.53	3.25	1.97	1.98	3.77	1.60	<0.69	1.05	1.68
Barium	7440-39-3	mg/kg	4,700			48.1	59.5	68.7	57.2	86.3	38.8	84.3	61.8	97.6	69.0	76.7	31.4	61.3	77.9
Cadmium	7440-43-9	mg/kg	34			<0.41	<0.41	<0.39	<0.39	<0.39	<0.40	<0.37	<0.44	<0.49	<0.37	<0.37	<0.35	<0.34	<0.43
Chromium, Total	7440-47-3	mg/kg	100			16.3	17.7	19.5	28.0	13.7	17.7	21.1	17.5	27.9	21.7	26.6	23.6	18.7	23.3
Lead	7439-92-1	mg/kg	400			100	4.00	16.4	6.07	9.16	4.79	8.10	5.47	8.69	10.1	10.3	3.49	44.2	70.9
Mercury	7439-97-6	mg/kg	20			<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Selenium	7782-49-2	mg/kg	340			<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.7	<2.0	<1.5	<1.5	<1.4	<1.4	<1.7
Silver	7440-22-4	mg/kg	340			<0.41	<0.41	<0.39	<0.39	<0.39	<0.40	<0.37	<0.44	<0.49	<0.37	<0.37	<0.35	<0.34	<0.43
SOIL-Metals-SPLP			.	**2015/2013 - GA PMC**	.														
Arsenic	7440-38-2	mg/l		0.05		0.005	<0.004	<0.004	<0.004	<0.004	<0.004	0.005	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Barium	7440-39-3	mg/l		1		0.029	0.036	0.023	0.015	0.029	<0.010	0.034	0.036	0.011	0.020	<0.010	<0.010	0.013	<0.010
Cadmium	7440-43-9	mg/l		0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<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		0.05		0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	7439-92-1	mg/l		0.015		**0.062**	<0.010	0.014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Mercury	7439-97-6	mg/l		0.002		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	7782-49-2	mg/l		0.05		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Silver	7440-22-4	mg/l		0.036		<0.010	<0.010	<0.010	<0.010	<0.010	<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 - GA PMC**	.														
Anthracene	120-12-7	µg/kg	1,000,000	40,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	420
Benzo(a)anthracene	56-55-3	µg/kg	1,000	1,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	1000
Benzo(a)pyrene	50-32-8	µg/kg	1,000	1,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	890
Benzo(b)fluoranthene	205-99-2	µg/kg	1,000	1,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	830
Benzo(ghi)perylene	191-24-2	µg/kg	8400	1000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	700
Benzo(k)fluoranthene	207-08-9	µg/kg	8,400	1,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	800
Chrysene	218-01-9	µg/kg	84000	1000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	**1200**
Fluoranthene	206-44-0	µg/kg	1,000,000	5,600		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	2400
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	1000	1000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	700
Phenanthrene	85-01-8	µg/kg	1,000,000	4,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	2300
Pyrene	129-00-0	µg/kg	1,000,000	4,000		<300	<270	<270	<290	<260	<270	<260	<280	<310	<260	<270	<270	<260	2100
SOIL-8260B			**2015/2013 - Res DEC**	**2015/2013 - GA PMC**	.														
SOIL-Pest-8081A			**2015/2013 - Res DEC**		.														
4,4'-DDE	72-55-9	µg/kg	1800			13	NA	<1.9	NA	<1.9	NA	<1.8	NA	NA	<1.8	NA	NA	<1.9	<2.2
4,4'-DDT	50-29-3	µg/kg	1800			15	NA	<1.9	NA	<1.9	NA	<1.8	NA	NA	<1.8	NA	NA	<1.9	11
SOIL-Pest-8081A-SPLP			.	.	**2015/2013 - GWPC**														
4,4'-DDE	72-55-9	µg/l			0.1	<0.005	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005
4,4'-DDT	50-29-3	µg/l			0.1	<0.005	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005
SOIL-CTETPH			**2015/2013 - Res DEC**	**2015/2013 - GA PMC**	.														
CT ETPH	CT ETPH	mg/kg	500	500		<65	<57	<57	<62	<55	<58	<56	<61	<67	<55	<57	<58	<57	<65
SOIL-PCBs-8082			**2015/2013 - Res DEC**	**2015/2013 - GA PMC**	.														
PCB-1016	12674-11-2	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1221	11104-28-2	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1232	11141-16-5	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1242	53469-21-9	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1248	12672-29-6	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1254	11097-69-1	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1260	11096-82-5	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1262	37324-23-5	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCB-1268	11100-14-4	µg/kg				<87	<77	<78	<81	<75	<78	<74	<80	<91	<73	<76	<78	<74	<88
PCBs(8082)-Total		µg/kg	1,000			<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL
SOIL-Misc			**2015/2013 - Res DEC**	**2015/2013 - GA PMC**	.														
solids (percent)	solids	%				76	86	85	80	88	84	90	82	73	90	87	85	87	75

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	Below Reporting Limit

Notes:

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

Table 2
Summary of Groundwater Analytical Results
Rehabilitation of Bridge No. 00196 - I-95 Over U.S. Route 1
HRP# CTD4048.21

Lab Report No.:	GBZ96912
Lab Sample No.:	BZ96912SITE
HRP Sample No.:	MW-1
Date Collected:	3/1/2018

WATER-Metals	**CAS#**		**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
Arsenic	7440-38-2	mg/l		0.05	0.004	**0.013**
Barium	7440-39-3	mg/l		1	2.2	**1.67**
Cadmium	7440-43-9	mg/l		0.005	0.006	**0.006**
Chromium, Total	7440-47-3	mg/l		0.05	0.11	**0.235**
Lead	7439-92-1	mg/l		0.015	0.013	**0.329**
Mercury	7439-97-6	mg/l		0.002	0.0004	<0.0002
Selenium	7782-49-2	mg/l		0.05	0.05	<0.010
Silver	7440-22-4	mg/l		0.036	0.012	<0.001
WATER-DissolvedMetals			**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
Arsenic	7440-38-2	mg/l		0.05	0.004	<0.004
Barium	7440-39-3	mg/l		1	2.2	0.227
Cadmium	7440-43-9	mg/l		0.005	0.006	<0.001
Chromium, Total	7440-47-3	mg/l		0.05	0.11	0.001
Lead	7439-92-1	mg/l		0.015	0.013	<0.002
Mercury	7439-97-6	mg/l		0.002	0.0004	<0.0002
Selenium	7782-49-2	mg/l		0.05	0.05	<0.011
Silver	7440-22-4	mg/l		0.036	0.012	<0.001
WATER-8270C			**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
Fluoranthene	206-44-0	µg/l		280	3,700	0.06
Naphthalene	91-20-3	µg/l		280	210	0.12
Pyrene	129-00-0	µg/l		200	110,000	0.06
WATER-8260B			**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
1,2-Dibromo-3-chloropropane	96-12-8	µg/l		0.2	1.1	(<0.50)
1,2-Dibromoethane (EDB) (ethylene dibromide)	106-93-4	µg/l	4	0.05		(<0.25)
m-,p-,o-Xylene	1330-20-7	µg/l	21,300	530	270	1.2
m/p-Xylenes	179601-23-1	µg/l				1.2
Xylene-Total		µg/l	21,300	530	270	1.2
WATER-CTETPH			**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
CT ETPH	CT ETPH	mg/l		0.25	0.25	<0.070
WATER-PCBs-8082			**2015/2013 - Res GWVC**	**2015/2013 - GWPC**	**2015/2013 - SWPC**	
PCB-1016	12674-11-2	µg/l				<0.048
PCB-1221	11104-28-2	µg/l				<0.048
PCB-1232	11141-16-5	µg/l				<0.048
PCB-1242	53469-21-9	µg/l				<0.048
PCB-1248	12672-29-6	µg/l				<0.048
PCB-1254	11097-69-1	µg/l				<0.048
PCB-1260	11096-82-5	µg/l				<0.048
PCB-1262	37324-23-5	µg/l				<0.048
PCB-1268	11100-14-4	µg/l				<0.048
PCBs(8082)-Total		µg/l		0.5	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
GWPC = Groundwater 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: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-1/MW-1
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		

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

Ground Elevation:

Total Boring Depth:

Depth to Bedrock:

PROPORTIONS

trace: 0 to 10% some: 20 to 35%

little: 10 to 20% and: 35 to 50%

Sampler Depth interval (ft) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
0	5		4	Dry		0-0.5	TOPSOIL	0-2.5	1.5	0-2	SB-1 (0-2')
						0.5-4	Coarse to v. course, dark to med. brown SAND with pebbles and small rocks	2.5-5	0.1		
						4-5					
5	10		4	Saturated		5-10	V. coarse, light to med. brown, homogenous SAND	5-7.5	0.0	5-7	SB-1 (5-7')
								7.5-10	0.0		
10	15		5	Saturated		5-10	v. coarse, medium brown SAND with pebbles and rocks	10-12.5	0.0		
								12.5-15	0.0		
							Bottom of boring 15'				
							MW-1 installed 14.5' with 10' screen and 5' riser.				

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: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-2
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth:	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) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
						0-0.5	TOPSOIL				
0	5		2	Dry		0.5-5	Med. to fine, med. brown SAND Layer of small black rocks, possibly asphalt, at 2'	0-2.5	0.5	0-2	SB-2 (0-2')
								2.5-5	0.4		
5	10		4	Saturated		5-7	Med. grained, brown and grey mottled heterogenous SAND	5-7.5	0.0	5-7	SB-2 (5-7')
				Dry		7-10	Med. to fine, light to med. brown, homogenous SAND	7.5-10	0.0		
10	15		5	Saturated		10-13	V. fine SAND to SILT, med. brown, homogenous	10-12.5	0.0		
						13-15	Coarse grained, med. to light brown SAND with pebbles	12.5-15	0.0		
							Bottom of boring 15'				

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 # Blows/ft		Cohesive Consistence # 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: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-3
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth:	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) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
						0-1	Asphalt				
0	5		4	Dry		1-4	Fine and course SAND mixture with small rocks, medium brown	1-4	0.0	1-3	SB-3 (1-3')
						4-4.5	Grey-white crushed ROCK				
						4.5-5	med. to fine, dark brown and grey SAND	4.5-5	0.1		
						5-6	fFne densley packed grey SAND	5-6	0.2	5-7	SB-3 (5-7')
5	9.75		4	Dry		6-9.75	V. fine, meidum brown SAND	6-9.75	0.4		
							Refusal at 9.75'				

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 # Blows/ft		Cohesive Consistence # 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	39340	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-4
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		

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

Ground Elevation:

Total Boring Depth:

Depth to Bedrock:

PROPORTIONS

trace: 0 to 10% some: 20 to 35%

little: 10 to 20% and: 35 to 50%

Sampler Depth interval (ft) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
0	5		4	Dry		0-1	Asphalt				
						1-4	Heterogenous mix of coarse and fine SAND and pebbles, mottled brown, grey, and white.	1-4	0.1	1-3	SB-4 (1-3')
						4-4.5	Crushed white ROCK				
						4.5-5	fine - med. grained, grey heterogenous SAND	4.5-5	0.3		
5	10		4	Dry		5-6	v. fine SAND to SILT, grey and very densley packed	5-6	0.2	5-7	SB-4 (5-7')
						6-10	Fine, med. brown, densley packed SAND	6-10	0.1		
10	11.5		1.5	Saturated		10-11.5	v. fine, med. brown, SAND to SILT	10-11.5	0.0	10-11.5	SB-4 (10-11.5')
							Refusal at 11.5'				

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 # Blows/ft		Cohesive Consistence # 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: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-5
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth:	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) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
0	3.5		3.5	Dry		0-1	Asphalt				
						1-2	Med. to coarse brown SAND	1-2	0.2	1-3	SB-5 (1-3')
						2-3.5	crushed ROCK and pebbles				
							Refusal at 3.5'				

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 # *Blows/ft*		Cohesive Consistence # *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	39340	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID: SB-6
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth:	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) from	to	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)	PID (ppm) Depth	Reading	Soil Sample Details Interval	ID
						0-1	Asphalt				
5	7		4	Dry		1-3	Med. grained, med. brown SAND	1-3	0.2	1-3	SB-6 (-3')
						35-	Coarse SAND and crushed rock	3-5	0.2		
5	7		2	Wet		5-6	med. to coarse and fine SAND mixed	5-6	0.2	5-7	SB-6 (5-7')
				Dry		6-7	crushed ROCK and v. coarse SAND				
							Refusal at 7'				

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 # *Blows/ft*		Cohesive Consistence # *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	39340	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID:
Location: Branford, Connecticut	**DRILLING / SOIL LOG**	
HRP# : CTD4048.21		Sheet No. 1 of 1
	Rig Type: Geoprobe© 7730	
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)
HRP Rep. Jessica A. Bilyard		
Ground Elevation:	**PROPORTIONS**	
Total Boring Depth:	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	3		2	Dry		0-0.5	Topsoil	0-3	0.3	0-2	HB-1 (0-2')
						0.5-3	Coarse SAND with pebbles, medium brown				
							Bottom of boring 3'				

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	39340	stiff
50+	very dense	16-30	very stiff
		31+	hard

Project: Bridge #00196, I-95 Over Route 1	HRP Associates, Inc.	Test Boring/Monitor Well ID:	
Location: Branford, Connecticut	**DRILLING / SOIL LOG**		
HRP# : CTD4048.21		Sheet No. 1 of 1	
	Rig Type: Geoprobe© 7730		
Date: 3/1/2018	**Hammer (weight [lb] / fall [inches])**	Driller: CES (Tim Marshall and Mike Handley)	
HRP Rep. Jessica A. Bilyard			

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

Ground Elevation:	**PROPORTIONS**
Total Boring Depth:	trace: 0 to 10% some: 20 to 35%
Depth to Bedrock:	little: 10 to 20% and: 35 to 50%

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	3		1	Dry		0-0.5	Topsoil	0-3	1.3	0-2	HB-2 (0-2')
						0.5-3	Med. and coarse SAND mixed with pebbles and small rocks, med. brown				

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	39340	stiff
50+	very dense	16-30	very stiff
		31+	hard

APPENDIX B
Laboratory Analytical Report

PHOENIX
Environmental Laboratories, Inc.

Thursday, March 22, 2018

Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Project ID: CTD 404821
Sample ID#s: BZ96891 - BZ96906

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.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. 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
UT Lab Registration #CT00007
VT Lab Registration #VT11301

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

NY # 11301

SDG Comments

March 22, 2018

SDG I.D.: GBZ96891

Version 2:
The RL of some pesticides were lowered to meet criteria on BZ96904.

Version 3:
Added GWP criteria and re-evaluated BZ96903 SPLP pesticides.

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	8:50
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96891

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	2.63	0.82	mg/Kg	1	03/03/18	MA	SW6010C
Barium	48.1	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.41	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	16.3	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	100	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	0.005	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.029	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	0.015	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	0.062	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	76		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
SPLP Extraction for Organics	Completed				03/02/18	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/05/18	N	SW3510C
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Ver 3

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Phoenix I.D.: BZ96891

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	65	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	62		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1221	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1232	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1242	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1248	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1254	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1260	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1262	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1268	ND	87	ug/Kg	2	03/05/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	77		%	2	03/05/18	AW	30 - 150 %
% TCMX	81		%	2	03/05/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	2.2	ug/Kg	2	03/06/18	PS	SW8081B
4,4' -DDE	13	8.7	ug/Kg	2	03/06/18	PS	SW8081B
4,4' -DDT	15	8.7	ug/Kg	2	03/06/18	PS	SW8081B
a-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Alachlor	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Aldrin	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
b-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Chlordane	ND	43	ug/Kg	2	03/06/18	PS	SW8081B
d-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Dieldrin	ND	4.3	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan I	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan II	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan sulfate	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Endrin	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Endrin aldehyde	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Endrin ketone	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
g-BHC	ND	1.7	ug/Kg	2	03/06/18	PS	SW8081B
Heptachlor	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Heptachlor epoxide	ND	8.7	ug/Kg	2	03/06/18	PS	SW8081B
Methoxychlor	ND	43	ug/Kg	2	03/06/18	PS	SW8081B
Toxaphene	ND	170	ug/Kg	2	03/06/18	PS	SW8081B
QA/QC Surrogates							
% DCBP	70		%	2	03/06/18	PS	30 - 150 %
% TCMX	68		%	2	03/06/18	PS	30 - 150 %
SPLP Pesticides (GA Criteria)							
4,4' -DDD	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/06/18	CW	SW8081B

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Phoenix I.D.: BZ96891

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDT	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/06/18	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/06/18	CW	SW8081B
b-BHC	ND	0.015	ug/L	1	03/06/18	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/06/18	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/06/18	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/06/18	CW	SW8081B
QA/QC Surrogates							
%DCBP (Surrogae Rec)	35		%	1	03/06/18	CW	30 - 150 %
%TCMX (Surrogate Rec)	92		%	1	03/06/18	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Phoenix I.D.: BZ96891

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	260	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Phoenix I.D.: BZ96891

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	96		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	870	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-1 (0-2FT)

Phoenix I.D.: BZ96891

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	870	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	79		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	71		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	77		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	77		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	85		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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.

Pesticide Comment:
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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	8:55
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96892

Project ID: CTD 404821
Client ID: SB-1 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	2.01	0.82	mg/Kg	1	03/03/18	MA	SW6010C
Barium	59.5	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.41	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	17.7	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	4.00	0.41	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.036	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	86		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-1 (5-7FT)

Phoenix I.D.: BZ96892

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1221	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1232	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1242	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1248	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1254	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1260	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1262	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1268	ND	77	ug/Kg	2	03/07/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	74		%	2	03/07/18	AW	30 - 150 %
% TCMX	70		%	2	03/07/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	6.2	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-1 (5-7FT)

Phoenix I.D.: BZ96892

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	760	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-1 (5-7FT)

Phoenix I.D.: BZ96892

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	760	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	100		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	68		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	77		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	76		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	90		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	9:15
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96893

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	2.30	0.78	mg/Kg	1	03/03/18	MA	SW6010C
Barium	68.7	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	19.5	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	16.4	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.023	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	0.014	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	85		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
SPLP Extraction for Organics	Completed				03/02/18	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/05/18	N	SW3510C
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Ver 3

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Phoenix I.D.: BZ96893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1221	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1232	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1242	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1248	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1254	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1260	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1262	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1268	ND	78	ug/Kg	2	03/05/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	87		%	2	03/05/18	AW	30 - 150 %
% TCMX	91		%	2	03/05/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDE	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDT	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
a-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Alachlor	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Aldrin	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
b-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Chlordane	ND	39	ug/Kg	2	03/06/18	CW	SW8081B
d-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan I	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan II	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Endrin	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Endrin aldehyde	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Endrin ketone	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	7.8	ug/Kg	2	03/06/18	CW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	03/06/18	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/06/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	76		%	2	03/06/18	CW	30 - 150 %
% TCMX	76		%	2	03/06/18	CW	30 - 150 %
SPLP Pesticides (GA Criteria)							
4,4' -DDD	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/06/18	CW	SW8081B

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Phoenix I.D.: BZ96893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDT	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/06/18	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/06/18	CW	SW8081B
b-BHC	ND	0.020	ug/L	1	03/06/18	CW	SW8081B
Chlordane	ND	0.051	ug/L	1	03/06/18	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/06/18	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/06/18	CW	SW8081B
QA/QC Surrogates							
%DCBP (Surrogae Rec)	63		%	1	03/06/18	CW	30 - 150 %
%TCMX (Surrogate Rec)	103		%	1	03/06/18	CW	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Phoenix I.D.: BZ96893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	260	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	86		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Phoenix I.D.: BZ96893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	97		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	770	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-2 (0-2FT)

Phoenix I.D.: BZ96893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	770	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	59		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	49		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	49		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	47		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	53		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	9:20
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96894

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	2.22	0.78	mg/Kg	1	03/03/18	MA	SW6010C
Barium	57.2	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	28.0	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	6.07	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.015	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	80		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	62	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Phoenix I.D.: BZ96894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1221	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1232	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1242	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1248	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1254	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1260	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1262	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
PCB-1268	ND	81	ug/Kg	2	03/07/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	79		%	2	03/07/18	AW	30 - 150 %
% TCMX	74		%	2	03/07/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Phoenix I.D.: BZ96894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.6	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	9.6	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.6	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.8	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Phoenix I.D.: BZ96894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	830	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Phoenix I.D.: BZ96894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	830	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	290	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	111		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	81		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	80		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	85		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	88		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	96		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

Project ID: CTD 404821
Client ID: SB-2 (5-7FT)

Phoenix I.D.: BZ96894

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	10:30
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96895

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	2.66	0.78	mg/Kg	1	03/03/18	MA	SW6010C
Barium	86.3	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	13.7	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	9.16	0.39	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.029	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	88		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Phoenix I.D.: BZ96895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1221	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1232	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1242	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1248	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1254	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1260	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1262	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1268	ND	75	ug/Kg	2	03/05/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	2	03/05/18	AW	30 - 150 %
% TCMX	83		%	2	03/05/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDE	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDT	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
a-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Alachlor	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Aldrin	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
b-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/06/18	CW	SW8081B
d-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Endrin	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	03/06/18	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/06/18	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/06/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	70		%	2	03/06/18	CW	30 - 150 %
% TCMX	62		%	2	03/06/18	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Phoenix I.D.: BZ96895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Phoenix I.D.: BZ96895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methylene chloride	ND	9.1	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Phoenix I.D.: BZ96895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-3 (1-3FT)

Phoenix I.D.: BZ96895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	72		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	66		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	80		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		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:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	10:35
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96896

Project ID: CTD 404821
Client ID: SB-3 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	3.53	0.80	mg/Kg	1	03/03/18	MA	SW6010C
Barium	38.8	0.40	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	17.7	0.40	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	4.79	0.40	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	84		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-3 (5-7FT)

Phoenix I.D.: BZ96896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	03/06/18	AW	30 - 150 %
% TCMX	75		%	2	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-3 (5-7FT)

Phoenix I.D.: BZ96896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-3 (5-7FT)

Phoenix I.D.: BZ96896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	780	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-3 (5-7FT)

Phoenix I.D.: BZ96896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	780	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	120		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	84		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	79		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	82		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	87		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	93		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	10:55
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96897

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	3.25	0.74	mg/Kg	1	03/03/18	MA	SW6010C
Barium	84.3	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	21.1	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	8.10	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	0.005	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.034	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	90		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Phoenix I.D.: BZ96897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	88		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1221	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1232	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1242	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1248	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1254	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1260	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1262	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1268	ND	74	ug/Kg	2	03/05/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	98		%	2	03/05/18	AW	30 - 150 %
% TCMX	97		%	2	03/05/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDE	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDT	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
a-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Alachlor	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Aldrin	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
b-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
d-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan I	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan II	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin aldehyde	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin ketone	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/06/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	90		%	2	03/06/18	CW	30 - 150 %
% TCMX	81		%	2	03/06/18	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Phoenix I.D.: BZ96897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	21	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	21	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	210	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.6	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Phoenix I.D.: BZ96897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methylene chloride	ND	8.6	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.6	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.3	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Phoenix I.D.: BZ96897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (1-3FT)

Phoenix I.D.: BZ96897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	70		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	77		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		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:

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

March 22, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	11:00
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96898

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.44	0.44	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	1.97	0.87	mg/Kg	1	03/03/18	MA	SW6010C
Barium	61.8	0.44	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.44	0.44	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	17.5	0.44	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	5.47	0.44	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.036	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	82		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Phoenix I.D.: BZ96898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	85		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	80	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	77		%	2	03/06/18	AW	30 - 150 %
% TCMX	67		%	2	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Phoenix I.D.: BZ96898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Phoenix I.D.: BZ96898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	800	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Phoenix I.D.: BZ96898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	800	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	280	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	71		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	68		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	76		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	101		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

Project ID: CTD 404821
Client ID: SB-4 (5-7FT)

Phoenix I.D.: BZ96898

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

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

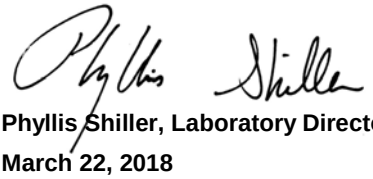
Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	11:05
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96899

Project ID: CTD 404821
Client ID: SB-4 (10-11.5FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.49	0.49	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	1.98	0.98	mg/Kg	1	03/03/18	MA	SW6010C
Barium	97.6	0.49	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.49	0.49	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	27.9	0.49	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	8.69	0.49	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 2.0	2.0	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.011	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	73		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	67	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-4 (10-11.5FT)

Phoenix I.D.: BZ96899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	91	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	70		%	2	03/06/18	AW	30 - 150 %
% TCMX	63		%	2	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (10-11.5FT)

Phoenix I.D.: BZ96899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	890	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	310	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-4 (10-11.5FT)

Phoenix I.D.: BZ96899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	890	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	310	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	78		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	76		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	76		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	82		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	85		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

Project ID: CTD 404821
Client ID: SB-4 (10-11.5FT)

Phoenix I.D.: BZ96899

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	11:25
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96900

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	3.77	0.74	mg/Kg	1	03/03/18	MA	SW6010C
Barium	69.0	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	21.7	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	10.1	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.020	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/06/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	90		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Phoenix I.D.: BZ96900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	93		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1221	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1232	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1242	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1248	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1254	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1260	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1262	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
PCB-1268	ND	73	ug/Kg	2	03/05/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	61		%	2	03/05/18	AW	30 - 150 %
% TCMX	61		%	2	03/05/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDE	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDT	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
a-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Alachlor	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Aldrin	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
b-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
d-BHC	ND	1.8	ug/Kg	2	03/06/18	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Endrin	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	03/06/18	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/06/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	55		%	2	03/06/18	CW	30 - 150 %
% TCMX	53		%	2	03/06/18	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Phoenix I.D.: BZ96900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Phoenix I.D.: BZ96900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methylene chloride	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Phoenix I.D.: BZ96900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-5 (1-3FT)

Phoenix I.D.: BZ96900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	69		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	83		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		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:

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

March 22, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	11:42
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96901

Project ID: CTD 404821
Client ID: SB-6 (1-3FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	1.60	0.75	mg/Kg	1	03/03/18	MA	SW6010C
Barium	76.7	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	26.6	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	10.3	0.37	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/05/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	87		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-6 (1-3FT)

Phoenix I.D.: BZ96901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	76	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	71		%	2	03/06/18	AW	30 - 150 %
% TCMX	64		%	2	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-6 (1-3FT)

Phoenix I.D.: BZ96901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-6 (1-3FT)

Phoenix I.D.: BZ96901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	760	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-6 (1-3FT)

Phoenix I.D.: BZ96901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	760	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	77		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	74		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	91		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	11:45
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96902

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	< 0.69	0.69	mg/Kg	1	03/03/18	MA	SW6010C
Barium	31.4	0.35	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	23.6	0.35	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	3.49	0.35	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/06/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	85		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	03/06/18	JRB	CTETPH 8015D

Ver 3

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Phoenix I.D.: BZ96902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	67		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	78	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	69		%	2	03/06/18	AW	30 - 150 %
% TCMX	61		%	2	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/07/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Phoenix I.D.: BZ96902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	03/07/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Phoenix I.D.: BZ96902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	770	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Phoenix I.D.: BZ96902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	770	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	86		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	76		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	78		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	81		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	89		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

Project ID: CTD 404821
Client ID: SB-6 (5-7FT)

Phoenix I.D.: BZ96902

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	12:45
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96903

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	1.05	0.68	mg/Kg	1	03/03/18	MA	SW6010C
Barium	61.3	0.34	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.34	0.34	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	18.7	0.34	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	44.2	0.34	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	0.013	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/06/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	87		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
SPLP Extraction for Organics	Completed				03/02/18	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/05/18	N	SW3510C
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Ver 3

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	74	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	80		%	2	03/06/18	AW	30 - 150 %
% TCMX	84		%	2	03/06/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDE	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
4,4' -DDT	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
a-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Alachlor	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Aldrin	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
b-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
d-BHC	ND	1.9	ug/Kg	2	03/06/18	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan I	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan II	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin aldehyde	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Endrin ketone	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	7.4	ug/Kg	2	03/06/18	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/06/18	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/06/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	73		%	2	03/06/18	CW	30 - 150 %
% TCMX	67		%	2	03/06/18	CW	30 - 150 %
SPLP Pesticides (GA Criteria)							
4,4' -DDD	ND	0.010	ug/L	1	03/06/18	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/06/18	PS	SW8081B

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDT	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/06/18	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/06/18	PS	SW8081B
b-BHC	ND	0.010	ug/L	1	03/06/18	PS	SW8081B
Chlordane	ND	0.050	ug/L	1	03/06/18	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/06/18	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/06/18	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/06/18	PS	SW8081B
QA/QC Surrogates							
%DCBP (Surrogae Rec)	51		%	1	03/06/18	PS	30 - 150 %
%TCMX (Surrogate Rec)	100		%	1	03/06/18	PS	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	250	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.9	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	9.9	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.9	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.9	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	96		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	750	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	82		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	79		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	70		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	80		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

Project ID: CTD 404821
Client ID: HB-1 (0-2FT)

Phoenix I.D.: BZ96903

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

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

Comments:

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	13:00
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96904

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	03/03/18	MA	SW6010C
Arsenic	1.68	0.85	mg/Kg	1	03/03/18	MA	SW6010C
Barium	77.9	0.43	mg/Kg	1	03/03/18	MA	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	03/03/18	MA	SW6010C
Chromium	23.3	0.43	mg/Kg	1	03/03/18	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/05/18	RS	SW7471B
Lead	70.9	0.43	mg/Kg	1	03/03/18	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	03/03/18	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/05/18	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/06/18	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/05/18	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/05/18	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	03/05/18	MA	SW6010C
SPLP Metals Digestion	Completed				03/05/18	I/I	SW3010A
Percent Solid	75		%		03/02/18	AP	SW846-%Solid
Soil Extraction for PCB	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for Pesticide	Completed				03/02/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				03/02/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				03/02/18	CC/VCK	SW3545A
Mercury Digestion	Completed				03/05/18	I/W	SW7471B
SPLP Digestion Mercury	Completed				03/05/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/02/18	I	SW1312
SPLP Extraction for Organics	Completed				03/02/18	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/05/18	N	SW3510C
Total Metals Digest	Completed				03/02/18	B/X/BF	SW3050B

Ver 3

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Phoenix I.D.: BZ96904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	65	mg/Kg	1	03/06/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/06/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	03/06/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1221	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1232	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1242	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1248	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1254	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1260	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1262	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
PCB-1268	ND	88	ug/Kg	2	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	60		%	2	03/06/18	AW	30 - 150 %
% TCMX	90		%	2	03/06/18	AW	30 - 150 %
Pesticides							
4,4' -DDD	ND	2.2	ug/Kg	2	03/06/18	PS	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	03/06/18	PS	SW8081B
4,4' -DDT	11	8.8	ug/Kg	2	03/06/18	PS	SW8081B
a-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Alachlor	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Aldrin	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
b-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Chlordane	ND	44	ug/Kg	2	03/06/18	PS	SW8081B
d-BHC	ND	2.0	ug/Kg	2	03/06/18	PS	SW8081B
Dieldrin	ND	4.4	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan I	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan II	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Endosulfan sulfate	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Endrin	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Endrin aldehyde	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Endrin ketone	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
g-BHC	ND	1.8	ug/Kg	2	03/06/18	PS	SW8081B
Heptachlor	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Heptachlor epoxide	ND	8.8	ug/Kg	2	03/06/18	PS	SW8081B
Methoxychlor	ND	44	ug/Kg	2	03/06/18	PS	SW8081B
Toxaphene	ND	180	ug/Kg	2	03/06/18	PS	SW8081B
QA/QC Surrogates							
% DCBP	68		%	2	03/06/18	PS	30 - 150 %
% TCMX	64		%	2	03/06/18	PS	30 - 150 %
SPLP Pesticides (GA Criteria)							
4,4' -DDD	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/06/18	CW	SW8081B

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Phoenix I.D.: BZ96904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDT	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/06/18	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/06/18	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/06/18	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/06/18	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/06/18	CW	SW8081B
Methoxychlor	ND	0.010	ug/L	1	03/06/18	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/06/18	CW	SW8081B
QA/QC Surrogates							
%DCBP (Surrogae Rec)	55		%	1	03/06/18	CW	30 - 150 %
%TCMX (Surrogate Rec)	96		%	1	03/06/18	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Phoenix I.D.: BZ96904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	310	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	6.3	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Phoenix I.D.: BZ96904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	1	03/07/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/03/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
1,3-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	430	ug/Kg	1	03/03/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	430	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Acetophenone	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Aniline	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Anthracene	420	300	ug/Kg	1	03/03/18	DD	SW8270D
Benz(a)anthracene	1000	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(a)pyrene	890	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(b)fluoranthene	830	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(ghi)perylene	700	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzo(k)fluoranthene	800	300	ug/Kg	1	03/03/18	DD	SW8270D
Benzoic acid	ND	870	ug/Kg	1	03/03/18	DD	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	430	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	03/03/18	DD	SW8270D

Project ID: CTD 404821
Client ID: HB-2 (0-2FT)

Phoenix I.D.: BZ96904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	1200	300	ug/Kg	1	03/03/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-butylphthalate	ND	870	ug/Kg	1	03/03/18	DD	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Fluoranthene	2400	300	ug/Kg	1	03/03/18	DD	SW8270D
Fluorene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	700	300	ug/Kg	1	03/03/18	DD	SW8270D
Isophorone	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Naphthalene	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/03/18	DD	SW8270D
Pentachlorophenol	ND	430	ug/Kg	1	03/03/18	DD	SW8270D
Phenanthrene	2300	300	ug/Kg	1	03/03/18	DD	SW8270D
Phenol	ND	300	ug/Kg	1	03/03/18	DD	SW8270D
Pyrene	2100	300	ug/Kg	1	03/03/18	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	03/03/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorobiphenyl	84		%	1	03/03/18	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	03/03/18	DD	30 - 130 %
% Nitrobenzene-d5	82		%	1	03/03/18	DD	30 - 130 %
% Phenol-d5	73		%	1	03/03/18	DD	30 - 130 %
% Terphenyl-d14	79		%	1	03/03/18	DD	30 - 130 %
Field Extraction	Completed				03/01/18		SW5035A

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

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

Comments:

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.

Pesticide Comment:
An elevated RL was reported due to low % solids.

Pesticide Comment:
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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96905

Project ID: CTD 404821
Client ID: TB- LL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: TB- LL

Phoenix I.D.: BZ96905

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	250	ug/Kg	1	03/07/18	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	03/07/18	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/07/18	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: TB- LL

Phoenix I.D.: BZ96905

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	1	03/07/18	JLI	70 - 130 %
Field Extraction	Completed				03/01/18		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.

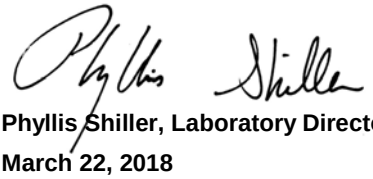
Comments:

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.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

March 22, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/01/18	
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96891
Phoenix ID: BZ96906

Project ID: CTD 404821
Client ID: TB-HL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	50	ug/Kg	50	03/07/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	50	ug/Kg	50	03/07/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
1,1-Dichloroethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,1-Dichloroethene	ND	140	ug/Kg	50	03/07/18	JLI	SW8260C
1,1-Dichloropropene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	50	ug/Kg	50	03/07/18	JLI	SW8260C
1,2-Dibromoethane	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,2-Dichloroethane	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
1,2-Dichloropropane	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,3-Dichloropropane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
2,2-Dichloropropane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
2-Chlorotoluene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
2-Hexanone	ND	700	ug/Kg	50	03/07/18	JLI	SW8260C
2-Isopropyltoluene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
4-Chlorotoluene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	03/07/18	JLI	SW8260C

Project ID: CTD 404821
Client ID: TB-HL

Phoenix I.D.: BZ96906

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5000	ug/Kg	50	03/07/18	JLI	SW8260C
Acrylonitrile	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
Benzene	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
Bromobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Bromochloromethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Bromodichloromethane	ND	50	ug/Kg	50	03/07/18	JLI	SW8260C
Bromoform	ND	80	ug/Kg	50	03/07/18	JLI	SW8260C
Bromomethane	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
Carbon Disulfide	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Carbon tetrachloride	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
Chlorobenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Chloroethane	ND	150	ug/Kg	50	03/07/18	JLI	SW8260C
Chloroform	ND	120	ug/Kg	50	03/07/18	JLI	SW8260C
Chloromethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
Dibromochloromethane	ND	50	ug/Kg	50	03/07/18	JLI	SW8260C
Dibromomethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Dichlorodifluoromethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Ethylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Hexachlorobutadiene	ND	200	ug/Kg	50	03/07/18	JLI	SW8260C
Isopropylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
m&p-Xylene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	03/07/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Methylene chloride	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Naphthalene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
n-Butylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
n-Propylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
o-Xylene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
p-Isopropyltoluene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
sec-Butylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Styrene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
tert-Butylbenzene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Tetrachloroethene	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	130	ug/Kg	50	03/07/18	JLI	SW8260C
Toluene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Total Xylenes	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	25	ug/Kg	50	03/07/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	03/07/18	JLI	SW8260C
Trichloroethene	ND	100	ug/Kg	50	03/07/18	JLI	SW8260C
Trichlorofluoromethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	250	ug/Kg	50	03/07/18	JLI	SW8260C
Vinyl chloride	ND	40	ug/Kg	50	03/07/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	50	03/07/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	50	03/07/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	50	03/07/18	JLI	70 - 130 %

Project ID: CTD 404821
Client ID: TB-HL

Phoenix I.D.: BZ96906

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	100		%	50	03/07/18	JLI	70 - 130 %
Field Extraction	Completed				03/01/18		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:

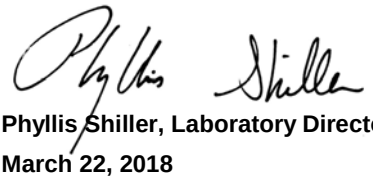
TRIP BLANK INCLUDED.

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
March 22, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
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QA/QC Report

March 22, 2018

QA/QC Data

SDG I.D.: GBZ96891

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 421748 (mg/L), QC Sample No: BZ96865 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	88.2			86.0			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 421644 (mg/kg), QC Sample No: BZ96895 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904)													
ICP Metals - Soil													
Arsenic	BRL	0.66	2.66	2.43	NC	118			92.6			75 - 125	30
Barium	BRL	0.33	86.3	72.0	18.1	93.4			85.5			75 - 125	30
Cadmium	BRL	0.33	<0.39	<0.36	NC	111			93.2			75 - 125	30
Chromium	BRL	0.33	13.7	17.8	26.0	110			103			75 - 125	30
Lead	BRL	0.33	9.16	7.94	14.3	116			95.2			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.4	NC	115			79.4			75 - 125	30
Silver	BRL	0.33	<0.39	<0.36	NC	107			97.5			75 - 125	30
QA/QC Batch 421744 (mg/kg), QC Sample No: BZ96895 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	90.8	89.1	1.9	95.2			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 421751 (mg/L), QC Sample No: BZ96901 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.004	<0.004	<0.004	NC	109			109			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	104			102			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	112			110			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	107			106			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	110			107			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	109			108			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	103			102			75 - 125	20
QA/QC Batch 421749 (mg/L), QC Sample No: BZ97155 (BZ96904)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	93.1			77.9			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 421745 (mg/kg), QC Sample No: BZ97533 (BZ96904)													
Mercury - Soil	BRL	0.02	0.05	0.05	NC	84.8	90.5	6.5	96.1			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%.													

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QA/QC Report

March 22, 2018

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 421639 (ug/Kg), QC Sample No: BZ96655 2X (BZ96892, BZ96894, BZ96896, BZ96898, BZ96899, BZ96901, BZ96902)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	96	107	10.8	82	68	18.7	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	100	115	14.0	85	77	9.9	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	91	%	100	113	12.2	87	79	9.6	30 - 150	30
% TCMX (Surrogate Rec)	97	%	96	107	10.8	87	77	12.2	30 - 150	30
QA/QC Batch 421811 (ug/L), QC Sample No: BZ96891 (BZ96891, BZ96893, BZ96903, BZ96904)										
Pesticides										
4,4' -DDD	ND	0.003	126	127	0.8				40 - 140	20
4,4' -DDE	ND	0.003	121	124	2.4				40 - 140	20
4,4' -DDT	ND	0.003	90	88	2.2				40 - 140	20
a-BHC	ND	0.002	66	90	30.8				40 - 140	20 r
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20
Aldrin	ND	0.002	78	66	16.7				40 - 140	20
b-BHC	ND	0.050	101	96	5.1				40 - 140	20
Chlordane	ND	0.050	96	94	2.1				40 - 140	20
d-BHC	ND	0.005	79	77	2.6				40 - 140	20
Dieldrin	ND	0.010	97	96	1.0				40 - 140	20
Endosulfan I	ND	0.005	83	85	2.4				40 - 140	20
Endosulfan II	ND	0.005	110	111	0.9				40 - 140	20
Endosulfan sulfate	ND	0.005	107	97	9.8				40 - 140	20
Endrin	ND	0.005	126	122	3.2				40 - 140	20
Endrin aldehyde	ND	0.005	99	90	9.5				40 - 140	20
Endrin ketone	ND	0.005	95	95	0.0				40 - 140	20
g-BHC	ND	0.002	84	83	1.2				40 - 140	20
Heptachlor	ND	0.005	85	76	11.2				40 - 140	20
Heptachlor epoxide	ND	0.005	101	103	2.0				40 - 140	20
Methoxychlor	ND	0.005	98	95	3.1				40 - 140	20
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20
% DCBP	114	%	115	116	0.9				30 - 150	20
% TCMX	91	%	90	96	6.5				30 - 150	20

Comment:

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 421660 (mg/Kg), QC Sample No: BZ96895 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	86	79	8.5	86	88	2.3	60 - 120	30	
% n-Pentacosane	75	%	80	74	7.8	76	76	0.0	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 421637 (ug/kg), QC Sample No: BZ96900 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	58	63	8.3	61	61	0.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	57	60	5.1	54	54	0.0	30 - 130	30	
1,2-Dichlorobenzene	ND	180	50	53	5.8	49	49	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	61	64	4.8	68	68	0.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	48	50	4.1	47	47	0.0	30 - 130	30	
1,4-Dichlorobenzene	ND	230	49	50	2.0	49	49	0.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	68	74	8.5	62	62	0.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	66	72	8.7	56	56	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	68	72	5.7	60	58	3.4	30 - 130	30	
2,4-Dimethylphenol	ND	230	68	71	4.3	49	45	8.5	30 - 130	30	
2,4-Dinitrophenol	ND	230	11	11	0.0	71	74	4.1	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	71	78	9.4	63	64	1.6	30 - 130	30	
2,6-Dinitrotoluene	ND	130	73	78	6.6	62	61	1.6	30 - 130	30	
2-Chloronaphthalene	ND	230	59	63	6.6	59	58	1.7	30 - 130	30	
2-Chlorophenol	ND	230	59	62	5.0	53	49	7.8	30 - 130	30	
2-Methylnaphthalene	ND	230	59	61	3.3	55	55	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	65	69	6.0	57	53	7.3	30 - 130	30	
2-Nitroaniline	ND	330	87	88	1.1	100	97	3.0	30 - 130	30	
2-Nitrophenol	ND	230	58	58	0.0	56	57	1.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	66	71	7.3	58	57	1.7	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	66	71	7.3	54	54	0.0	30 - 130	30	
3-Nitroaniline	ND	330	75	80	6.5	73	71	2.8	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	32	31	3.2	71	72	1.4	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	60	69	14.0	58	59	1.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	72	76	5.4	63	62	1.6	30 - 130	30	
4-Chloroaniline	ND	230	46	47	2.2	63	61	3.2	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	61	66	7.9	61	62	1.6	30 - 130	30	
4-Nitroaniline	ND	230	66	68	3.0	66	64	3.1	30 - 130	30	
4-Nitrophenol	ND	230	70	71	1.4	64	62	3.2	30 - 130	30	
Acenaphthene	ND	230	64	68	6.1	63	62	1.6	30 - 130	30	
Acenaphthylene	ND	130	61	65	6.3	59	59	0.0	30 - 130	30	
Acetophenone	ND	230	54	57	5.4	58	57	1.7	30 - 130	30	
Aniline	ND	330	36	36	0.0	47	40	16.1	30 - 130	30	
Anthracene	ND	230	64	69	7.5	63	62	1.6	30 - 130	30	
Benz(a)anthracene	ND	230	64	71	10.4	61	60	1.7	30 - 130	30	
Benzidine	ND	330	26	26	0.0	<10	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	63	68	7.6	59	59	0.0	30 - 130	30	
Benzo(b)fluoranthene	ND	160	64	67	4.6	61	63	3.2	30 - 130	30	
Benzo(ghi)perylene	ND	230	59	64	8.1	70	66	5.9	30 - 130	30	
Benzo(k)fluoranthene	ND	230	61	69	12.3	66	62	6.3	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	39	44	12.0	30 - 130	30	l

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzyl butyl phthalate	ND	230	68	73	7.1	56	57	1.8	30 - 130	30
Bis(2-chloroethoxy)methane	ND	230	58	60	3.4	59	56	5.2	30 - 130	30
Bis(2-chloroethyl)ether	ND	130	47	48	2.1	48	46	4.3	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	230	42	42	0.0	42	41	2.4	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	230	69	74	7.0	57	56	1.8	30 - 130	30
Carbazole	ND	230	65	71	8.8	63	63	0.0	30 - 130	30
Chrysene	ND	230	62	69	10.7	63	62	1.6	30 - 130	30
Dibenz(a,h)anthracene	ND	130	65	71	8.8	69	65	6.0	30 - 130	30
Dibenzofuran	ND	230	62	66	6.3	62	61	1.6	30 - 130	30
Diethyl phthalate	ND	230	64	70	9.0	63	63	0.0	30 - 130	30
Dimethylphthalate	ND	230	61	66	7.9	60	58	3.4	30 - 130	30
Di-n-butylphthalate	ND	670	65	71	8.8	58	58	0.0	30 - 130	30
Di-n-octylphthalate	ND	230	79	85	7.3	55	55	0.0	30 - 130	30
Fluoranthene	ND	230	64	70	9.0	63	62	1.6	30 - 130	30
Fluorene	ND	230	62	68	9.2	64	65	1.6	30 - 130	30
Hexachlorobenzene	ND	130	61	66	7.9	63	64	1.6	30 - 130	30
Hexachlorobutadiene	ND	230	55	58	5.3	53	54	1.9	30 - 130	30
Hexachlorocyclopentadiene	ND	230	48	49	2.1	53	63	17.2	30 - 130	30
Hexachloroethane	ND	130	48	49	2.1	46	47	2.2	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	65	72	10.2	66	62	6.3	30 - 130	30
Isophorone	ND	130	55	56	1.8	55	54	1.8	30 - 130	30
Naphthalene	ND	230	56	58	3.5	56	56	0.0	30 - 130	30
Nitrobenzene	ND	130	57	58	1.7	60	58	3.4	30 - 130	30
N-Nitrosodimethylamine	ND	230	44	44	0.0	72	68	5.7	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	56	58	3.5	58	55	5.3	30 - 130	30
N-Nitrosodiphenylamine	ND	130	65	71	8.8	61	60	1.7	30 - 130	30
Pentachloronitrobenzene	ND	230	65	69	6.0	67	66	1.5	30 - 130	30
Pentachlorophenol	ND	230	53	58	9.0	79	79	0.0	30 - 130	30
Phenanthrene	ND	130	61	66	7.9	62	61	1.6	30 - 130	30
Phenol	ND	230	63	66	4.7	56	53	5.5	30 - 130	30
Pyrene	ND	230	64	70	9.0	64	63	1.6	30 - 130	30
Pyridine	ND	230	32	31	3.2	58	55	5.3	30 - 130	30
% 2,4,6-Tribromophenol	59	%	61	62	1.6	68	67	1.5	30 - 130	30
% 2-Fluorobiphenyl	64	%	62	67	7.8	59	59	0.0	30 - 130	30
% 2-Fluorophenol	59	%	55	56	1.8	52	50	3.9	30 - 130	30
% Nitrobenzene-d5	65	%	60	61	1.7	58	57	1.7	30 - 130	30
% Phenol-d5	63	%	62	64	3.2	59	56	5.2	30 - 130	30
% Terphenyl-d14	67	%	67	76	12.6	66	64	3.1	30 - 130	30

Comment:

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 422109 (ug/kg), QC Sample No: BZ96904 (BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96903, BZ96904, BZ96905, BZ96906 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	99	97	2.0	104	103	1.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	94	95	1.1	101	99	2.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	94	97	3.1	118	111	6.1	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	94	95	1.1	109	107	1.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	93	94	1.1	107	102	4.8	70 - 130	30
1,1-Dichloroethene	ND	5.0	92	93	1.1	112	106	5.5	70 - 130	30
1,1-Dichloropropene	ND	5.0	95	95	0.0	110	108	1.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	96	97	1.0	103	105	1.9	70 - 130	30

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	5.0	92	92	0.0	108	101	6.7	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	98	99	1.0	102	101	1.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	96	96	0.0	109	106	2.8	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	96	94	2.1	115	115	0.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	92	92	0.0	110	105	4.7	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	94	93	1.1	105	103	1.9	70 - 130	30
1,2-Dichloroethane	ND	5.0	93	94	1.1	100	96	4.1	70 - 130	30
1,2-Dichloropropane	ND	5.0	97	96	1.0	111	108	2.7	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	95	96	1.0	109	106	2.8	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	94	94	0.0	104	103	1.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	91	92	1.1	107	105	1.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	93	93	0.0	103	102	1.0	70 - 130	30
2,2-Dichloropropane	ND	5.0	83	94	12.4	86	73	16.4	70 - 130	30
2-Chlorotoluene	ND	5.0	94	95	1.1	110	106	3.7	70 - 130	30
2-Hexanone	ND	25	96	99	3.1	114	107	6.3	70 - 130	30
2-Isopropyltoluene	ND	5.0	105	104	1.0	119	117	1.7	70 - 130	30
4-Chlorotoluene	ND	5.0	94	94	0.0	106	104	1.9	70 - 130	30
4-Methyl-2-pentanone	ND	25	104	105	1.0	121	116	4.2	70 - 130	30
Acetone	ND	10	99	93	6.3	94	107	12.9	70 - 130	30
Acrylonitrile	ND	5.0	92	94	2.2	114	115	0.9	70 - 130	30
Benzene	ND	1.0	95	93	2.1	110	107	2.8	70 - 130	30
Bromobenzene	ND	5.0	95	95	0.0	107	105	1.9	70 - 130	30
Bromochloromethane	ND	5.0	92	93	1.1	108	104	3.8	70 - 130	30
Bromodichloromethane	ND	5.0	97	95	2.1	101	99	2.0	70 - 130	30
Bromoform	ND	5.0	94	97	3.1	98	101	3.0	70 - 130	30
Bromomethane	ND	5.0	91	95	4.3	72	95	27.5	70 - 130	30
Carbon Disulfide	ND	5.0	99	98	1.0	114	108	5.4	70 - 130	30
Carbon tetrachloride	ND	5.0	97	99	2.0	95	93	2.1	70 - 130	30
Chlorobenzene	ND	5.0	94	94	0.0	108	106	1.9	70 - 130	30
Chloroethane	ND	5.0	99	98	1.0	120	102	16.2	70 - 130	30
Chloroform	ND	5.0	94	94	0.0	103	99	4.0	70 - 130	30
Chloromethane	ND	5.0	100	95	5.1	104	90	14.4	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	95	94	1.1	113	106	6.4	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	95	96	1.0	102	100	2.0	70 - 130	30
Dibromochloromethane	ND	3.0	99	100	1.0	105	104	1.0	70 - 130	30
Dibromomethane	ND	5.0	94	93	1.1	106	103	2.9	70 - 130	30
Dichlorodifluoromethane	ND	5.0	96	96	0.0	102	84	19.4	70 - 130	30
Ethylbenzene	ND	1.0	97	97	0.0	111	111	0.0	70 - 130	30
Hexachlorobutadiene	ND	5.0	99	98	1.0	114	111	2.7	70 - 130	30
Isopropylbenzene	ND	1.0	95	94	1.1	111	108	2.7	70 - 130	30
m&p-Xylene	ND	2.0	96	95	1.0	110	110	0.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	97	100	3.0	114	106	7.3	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	98	102	4.0	115	111	3.5	70 - 130	30
Methylene chloride	ND	5.0	90	89	1.1	105	112	6.5	70 - 130	30
Naphthalene	ND	5.0	92	94	2.2	107	106	0.9	70 - 130	30
n-Butylbenzene	ND	1.0	98	97	1.0	111	108	2.7	70 - 130	30
n-Propylbenzene	ND	1.0	95	94	1.1	110	106	3.7	70 - 130	30
o-Xylene	ND	2.0	95	96	1.0	111	111	0.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	97	97	0.0	112	110	1.8	70 - 130	30
sec-Butylbenzene	ND	1.0	100	99	1.0	116	112	3.5	70 - 130	30
Styrene	ND	5.0	95	95	0.0	109	108	0.9	70 - 130	30
tert-Butylbenzene	ND	1.0	95	94	1.1	110	106	3.7	70 - 130	30
Tetrachloroethene	ND	5.0	96	95	1.0	110	106	3.7	70 - 130	30

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrahydrofuran (THF)	ND	5.0	90	90	0.0	111	110	0.9	70 - 130	30	
Toluene	ND	1.0	96	96	0.0	111	107	3.7	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	103	97	6.0	114	116	1.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	92	95	3.2	94	90	4.3	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	104	106	1.9	103	97	6.0	70 - 130	30	
Trichloroethene	ND	5.0	97	95	2.1	110	108	1.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	96	95	1.0	105	86	19.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	102	104	1.9	118	112	5.2	70 - 130	30	
Vinyl chloride	ND	5.0	97	94	3.1	112	95	16.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	98	100	2.0	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	101	101	0.0	98	100	2.0	70 - 130	30	
% Dibromofluoromethane	99	%	97	102	5.0	99	97	2.0	70 - 130	30	
% Toluene-d8	98	%	100	100	0.0	100	100	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 Batch 421640 (ug/Kg), QC Sample No: BZ97559 2X (BZ96891, BZ96893, BZ96895, BZ96897, BZ96900, BZ96903, BZ96904)

Pesticides - Soil

4,4' -DDD	ND	1.7	76	96	23.3	64	60	6.5	40 - 140	30	
4,4' -DDE	ND	1.7	76	91	18.0	76	61	21.9	40 - 140	30	
4,4' -DDT	ND	1.7	76	100	27.3	71	59	18.5	40 - 140	30	
a-BHC	ND	1.0	62	74	17.6	60	44	30.8	40 - 140	30	r
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30	
Aldrin	ND	1.0	62	76	20.3	61	49	21.8	40 - 140	30	
b-BHC	ND	1.0	84	93	10.2	67	130	64.0	40 - 140	30	r
Chlordane	ND	33	73	86	16.4	69	51	30.0	40 - 140	30	
d-BHC	ND	3.3	73	91	22.0	68	56	19.4	40 - 140	30	
Dieldrin	ND	1.0	63	81	25.0	64	51	22.6	40 - 140	30	
Endosulfan I	ND	3.3	66	83	22.8	64	54	16.9	40 - 140	30	
Endosulfan II	ND	3.3	74	96	25.9	71	61	15.2	40 - 140	30	
Endosulfan sulfate	ND	3.3	76	95	22.2	72	63	13.3	40 - 140	30	
Endrin	ND	3.3	56	71	23.6	50	47	6.2	40 - 140	30	
Endrin aldehyde	ND	3.3	70	90	25.0	57	33	53.3	40 - 140	30	r
Endrin ketone	ND	3.3	75	92	20.4	72	69	4.3	40 - 140	30	
g-BHC	ND	1.0	60	73	19.5	58	46	23.1	40 - 140	30	
Heptachlor	ND	3.3	64	78	19.7	61	49	21.8	40 - 140	30	
Heptachlor epoxide	ND	3.3	72	88	20.0	71	57	21.9	40 - 140	30	
Methoxychlor	ND	3.3	74	95	24.9	72	69	4.3	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	90	%	81	98	19.0	76	56	30.3	30 - 150	30	
% TCMX	77	%	76	75	1.3	73	48	41.3	30 - 150	30	r

QA/QC Batch 421638 (ug/Kg), QC Sample No: BZ97559 2X (BZ96891, BZ96893, BZ96895, BZ96897, BZ96900, BZ96903, BZ96904)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	98	96	2.1	77	92	17.8	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	108	106	1.9	84	97	14.4	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% DCBP (Surrogate Rec)	60	%		111	108	2.7	89	104	15.5	30 - 150	30	
% TCMX (Surrogate Rec)	59	%		99	98	1.0	80	96	18.2	30 - 150	30	
QA/QC Batch 422112 (ug/kg), QC Sample No: BZ97757 (BZ96896, BZ96902)												
Volatiles - Soil												
1,1,1,2-Tetrachloroethane	ND	5.0		93	96	3.2	99	100	1.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0		90	91	1.1	91	96	5.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0		98	100	2.0	106	108	1.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0		93	93	0.0	101	104	2.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0		94	93	1.1	99	100	1.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0		97	100	3.0	105	108	2.8	70 - 130	30	
1,1-Dichloropropene	ND	5.0		95	97	2.1	103	105	1.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0		92	98	6.3	96	97	1.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0		90	91	1.1	96	97	1.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0		91	95	4.3	94	95	1.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0		95	99	4.1	101	101	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0		95	96	1.0	102	104	1.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0		91	94	3.2	98	103	5.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0		92	96	4.3	99	98	1.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0		83	84	1.2	87	90	3.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0		96	98	2.1	104	105	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0		95	99	4.1	101	102	1.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0		91	96	5.3	99	98	1.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0		91	93	2.2	96	100	4.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0		90	93	3.3	96	96	0.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0		100	73	31.2	88	85	3.5	70 - 130	30	r
2-Chlorotoluene	ND	5.0		95	100	5.1	102	101	1.0	70 - 130	30	
2-Hexanone	ND	25		92	92	0.0	97	101	4.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0		105	108	2.8	111	113	1.8	70 - 130	30	
4-Chlorotoluene	ND	5.0		95	98	3.1	99	98	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25		99	99	0.0	103	109	5.7	70 - 130	30	
Acetone	ND	10		69	112	47.5	79	77	2.6	70 - 130	30	l,r
Acrylonitrile	ND	5.0		96	94	2.1	102	107	4.8	70 - 130	30	
Benzene	ND	1.0		96	97	1.0	104	106	1.9	70 - 130	30	
Bromobenzene	ND	5.0		95	99	4.1	101	101	0.0	70 - 130	30	
Bromochloromethane	ND	5.0		93	94	1.1	100	102	2.0	70 - 130	30	
Bromodichloromethane	ND	5.0		90	92	2.2	95	95	0.0	70 - 130	30	
Bromoform	ND	5.0		91	93	2.2	94	98	4.2	70 - 130	30	
Bromomethane	ND	5.0		102	93	9.2	102	104	1.9	70 - 130	30	
Carbon Disulfide	ND	5.0		103	103	0.0	108	111	2.7	70 - 130	30	
Carbon tetrachloride	ND	5.0		93	92	1.1	89	91	2.2	70 - 130	30	
Chlorobenzene	ND	5.0		93	95	2.1	100	103	3.0	70 - 130	30	
Chloroethane	ND	5.0		102	103	1.0	45	47	4.3	70 - 130	30	m
Chloroform	ND	5.0		91	93	2.2	94	96	2.1	70 - 130	30	
Chloromethane	ND	5.0		99	105	5.9	105	109	3.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0		99	98	1.0	103	106	2.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0		93	95	2.1	96	98	2.1	70 - 130	30	
Dibromochloromethane	ND	3.0		96	97	1.0	97	99	2.0	70 - 130	30	
Dibromomethane	ND	5.0		92	91	1.1	96	101	5.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0		107	110	2.8	109	114	4.5	70 - 130	30	
Ethylbenzene	ND	1.0		96	97	1.0	102	107	4.8	70 - 130	30	
Hexachlorobutadiene	ND	5.0		94	99	5.2	102	103	1.0	70 - 130	30	
Isopropylbenzene	ND	1.0		97	101	4.0	103	105	1.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ96891

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
m&p-Xylene	ND	2.0	94	97	3.1	101	105	3.9	70 - 130	30
Methyl ethyl ketone	ND	5.0	95	96	1.0	101	102	1.0	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	99	97	2.0	103	111	7.5	70 - 130	30
Methylene chloride	ND	5.0	91	105	14.3	94	96	2.1	70 - 130	30
Naphthalene	ND	5.0	92	95	3.2	98	100	2.0	70 - 130	30
n-Butylbenzene	ND	1.0	95	99	4.1	101	102	1.0	70 - 130	30
n-Propylbenzene	ND	1.0	96	97	1.0	101	104	2.9	70 - 130	30
o-Xylene	ND	2.0	95	97	2.1	102	105	2.9	70 - 130	30
p-Isopropyltoluene	ND	1.0	96	100	4.1	102	104	1.9	70 - 130	30
sec-Butylbenzene	ND	1.0	100	104	3.9	106	109	2.8	70 - 130	30
Styrene	ND	5.0	93	96	3.2	99	103	4.0	70 - 130	30
tert-Butylbenzene	ND	1.0	95	98	3.1	101	103	2.0	70 - 130	30
Tetrachloroethene	ND	5.0	93	95	2.1	102	106	3.8	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	88	90	2.2	96	98	2.1	70 - 130	30
Toluene	ND	1.0	95	97	2.1	104	106	1.9	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	98	108	9.7	106	118	10.7	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	89	90	1.1	88	90	2.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	108	106	1.9	98	98	0.0	70 - 130	30
Trichloroethene	ND	5.0	95	97	2.1	107	109	1.9	70 - 130	30
Trichlorofluoromethane	ND	5.0	91	91	0.0	85	87	2.3	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	106	105	0.9	106	117	9.9	70 - 130	30
Vinyl chloride	ND	5.0	100	101	1.0	110	112	1.8	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	99	100	1.0	99	98	1.0	70 - 130	30
% Bromofluorobenzene	97	%	96	97	1.0	95	97	2.1	70 - 130	30
% Dibromofluoromethane	96	%	103	98	5.0	96	99	3.1	70 - 130	30
% Toluene-d8	97	%	100	100	0.0	100	100	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%.

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
March 22, 2018

Thursday, March 22, 2018

Criteria: CT: GAM, GWP

State: CT

Sample Criteria Exceedances Report

GBZ96891 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ96891	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	15	8.7	3	3	ug/Kg
BZ96891	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	13	8.7	3	3	ug/Kg
BZ96891	SPLP-PB	SPLP Lead	CT / RSR GA,GAA (mg/l) TCLP / Inorganic/PCB	0.062	0.010	0.015	0.015	mg/L
BZ96891	SPLP-PB	SPLP Lead	CT / RSR GWPC (ug/l) / Inorganics	0.062	0.010	0.015	0.015	mg/L
BZ96904	$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	1200	300	1000	1000	ug/Kg
BZ96904	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	11	8.8	3	3	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

Project Location: CTD 404821 ***Project Number:***

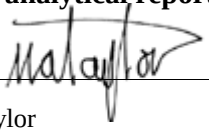
Laboratory Sample ID(s): BZ96891-BZ96906 ***Sampling Date(s):*** 3/1/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8081, 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: PEST Narration, SVOA Narration, VOA 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:  **Position:** Project Manager

Printed Name: Maryam Taylor **Date:** Thursday, March 22, 2018

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
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RCP Certification Report

March 22, 2018

SDG I.D.: GBZ96891

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.

ETPH Narration

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

Instrument:

AU-FID1 03/06/18-1 Jeff Bucko, Chemist 03/06/18

BZ96902

The initial calibration (ETPH302I) 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-FID11 03/05/18-1 Jeff Bucko, Chemist 03/05/18

BZ96897, BZ96898, BZ96899, BZ96900, BZ96901

The initial calibration (ETPH216I) 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: BZ96897, BZ96898, BZ96899, BZ96900, BZ96901
Preceding CC 305A022 - None.
Succeeding CC 305A029 - Pentacosane -100%L (30%)

AU-FID21 03/05/18-1 Jeff Bucko, Chemist 03/05/18

BZ96903, BZ96904

The initial calibration (ETPHD29I) 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-XL2 03/05/18-1 Jeff Bucko, Chemist 03/05/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896

The initial calibration (ETPH228I) 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 (Site Specific):

Batch 421660 (BZ96895)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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.
All MS recoveries were within 50 - 150 with the following exceptions: None.
All MSD recoveries were within 50 - 150 with the following exceptions: None.
All MS/MSD 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.

Mercury Narration

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

Instrument:

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SDG I.D.: GBZ96891

Mercury Narration

MERLIN 03/05/18 07:34 Rick Schweitzer, Chemist 03/05/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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 421745 (BZ97533)

BZ96904

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

Batch 421748 (BZ96865)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903

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%.

Batch 421749 (BZ97155)

BZ96904

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%.

QC (Site Specific):

Batch 421744 (BZ96895)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903

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 75-125%.

ICP Metals Narration

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

Instrument:

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Certification Report

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SDG I.D.: GBZ96891

ICP Metals Narration

ARCOS 03/02/18 06:09 Mike Arsenault, Chemist 03/02/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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 03/05/18 06:41 Mike Arsenault, Chemist 03/05/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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.

BLUE 03/06/18 06:55 Mike Arsenault, Chemist 03/06/18

BZ96900, BZ96902, BZ96903, BZ96904

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 (Site Specific):

Batch 421644 (BZ96895)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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

Batch 421751 (BZ96901)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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.

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RCP Certification Report

March 22, 2018

SDG I.D.: GBZ96891

PCB Narration

Instrument:

AU-ECD24 03/06/18-1 Adam Werner, Chemist 03/06/18

bz96892, BZ96894, BZ96898, BZ96899, BZ96901, BZ96902

The initial calibration (PC208AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC208BI) 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-ECD3 03/05/18-1 Adam Werner, Chemist 03/05/18

BZ96891, BZ96893, BZ96895, BZ96896, BZ96897, BZ96900, BZ96903, BZ96904

The initial calibration (PC208AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC208BI) 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 421638 (BZ97559)

BZ96891, BZ96893, BZ96895, BZ96897, BZ96900, BZ96903, BZ96904

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.

Batch 421639 (BZ96655)

BZ96892, BZ96894, BZ96896, BZ96898, BZ96899, BZ96901, BZ96902

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.

PEST Narration

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

QC Batch 421811 (Samples: BZ96891, BZ96893, BZ96903, BZ96904): -----

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

Instrument:

AU-ECD10 03/05/18-1 Carol Wohlmuth, Chemist 03/05/18

BZ96891, BZ96893, BZ96895, BZ96897, BZ96900, BZ96903, BZ96904

The initial calibration (PS305AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS305BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:
305B052 (BZ96891, BZ96893, BZ96897, BZ96900, BZ96904) - Endrin Breakdown (15%)
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

AU-ECD35 03/06/18-1 Carol Wohlmuth, Chemist 03/06/18

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PEST Narration

BZ96891, BZ96893, BZ96903, BZ96904

The initial calibration (PS305AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS305BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

QC (Batch Specific):

Batch 421640 (BZ97559)

BZ96891, BZ96893, BZ96895, BZ96897, BZ96900, BZ96903, BZ96904

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.

Batch 421811 (BZ96891)

BZ96891, BZ96893, BZ96903, BZ96904

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: a-BHC(30.8%)
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

SVOA Narration

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

QC Batch 421637 (Samples: BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904): -----

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, Benzoic Acid)

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Benzidine)

Instrument:

CHEM19 03/02/18-1 Damien Drobinski, Chemist 03/02/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

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

Initial Calibration Verification (CHEM19/SPLIT_0227):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 33% (20%), Hexachlorocyclopentadiene 28% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.088 (0.1), Benzidine 0 (0.01), Hexachlorobenzene 0.092 (0.1)
The following compounds did not meet a minimum response factors: Benzidine 0 (0.01)

Continuing Calibration Verification (CHEM19/0302_04A-SPLIT_0227):

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SVOA Narration

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
95% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 45%H (30%), Hexachlorocyclopentadiene 45%H (30%), N-Nitrosodimethylamine 39%H (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 45%H (40%), Hexachlorocyclopentadiene 45%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.083 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Site Specific):

Batch 421637 (BZ96900)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96896, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96902, BZ96903, BZ96904

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), Benzidine(26%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), Benzidine(26%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%)
All MSD recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%)
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 422112 (Samples: BZ96896, BZ96902): -----

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

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

Instrument:

CHEM26 03/07/18-1 Jane Li, Chemist 03/07/18

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96903, BZ96904, BZ96905, BZ96906

Initial Calibration Verification (CHEM26/VT-0306):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 38% (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 (CHEM26/0307_02-VT-0306):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

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SDG I.D.: GBZ96891

VOA Narration

99% 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.

CHEM26 03/07/18-2 Jane Li, Chemist 03/07/18

BZ96896, BZ96902

Initial Calibration Verification (CHEM26/VT-0306):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 38% (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 (CHEM26/0307_36-VT-0306):
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 422112 (BZ97757)

BZ96896, BZ96902

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(69%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: 2,2-Dichloropropane(31.2%), Acetone(47.5%)
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QC (Site Specific):

Batch 422109 (BZ96904)

BZ96891, BZ96892, BZ96893, BZ96894, BZ96895, BZ96897, BZ96898, BZ96899, BZ96900, BZ96901, BZ96903, BZ96904, BZ96905, BZ96906

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 70 - 130 with the following exceptions: None.
All MSD recoveries were within 70 - 130 with the following exceptions: None.
All MS/MSD 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%.

Temperature Narration

The samples were received at 3.7C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☐ No ☐
Coolant: IPK ☑ 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 3.7 °C Pg 1 of 2

Data Delivery:
☐ Fax #:
☑ Email: EDDe HRPAssociates.com

Customer: HRP Associates
Address: [redacted] Oronoque lane
Stratford CT 06614

Project: CTD 404821
Report to: Walt Seppelak & Jessica Bilyard
Invoice to: CT DAS Pricing No ISP 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: [signature] Date: 3/1/18

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	624 VOCs	8270 SVOCs	CT ETPH	Total 8RCRA Metals	4PL RCRA 8 Metals	PCBs 608	Total Pesticides	5PL Pesticides	Soil VOA Vials 1/ methanol [2 H2O	GL Soil container (8) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml [ ]1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
910891	SB-1 (0-2')	S	3/1/18	850	X	X	X	X	X	X	X	X	3	2								
910892	SB-1 (5-7')	S	|	855	X	X	X	X	X	X			3	2								
910893	SB-2 (0-2')	S	|	915	X	X	X	X	X	X	X	X	3	2								
910894	SB-2 (5-7')	S	|	920	X	X	X	X	X	X			3	2								
910895	SB-3 (1-3')	S	|	1030	X	X	X	X	X	X	X		3	2								
910896	SB-3 (5-7')	S	|	1035	X	X	X	X	X	X			3	2								
910897	SB-4 (1-3')	S	|	1055	X	X	X	X	X	X	X		3	2								
910898	SB-4 (5-7')	S	|	1100	X	X	X	X	X	X			3	2								
910899	SB-4 (10-11.5')	S	|	1105	X	X	X	X	X	X			3	2								
910900	SB-5 (1-3')	S	|	1125	X	X	X	X	X	X	X		3	2								
910901	SB-6 (1-3')	S	|	1142	X	X	X	X	X	X			3	2								
910902	SB-6 (5-7')	S	↓	1145	X	X	X	X	X	X			3	2								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	3/2/18	908
[signature]	ITW/UPS	3/2/18	1041

Comments, Special Requirements or Regulations:
PCB RLs on each Aroclor <0.1 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Cert
☐ GW Protection
☐ SW Protection
☒ GA Mobility
☐ GB Mobility
☐ 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
☐ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☒ Other EDD

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

* SURCHARGE APPLIES

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐

Temp 3.7 °C Pg 2 of 2

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

Data Delivery:
☐ Fax #:
☑ Email: EDD@HRPAssociates.com

Customer: HRP Associates
Address: 999 Pronogue Lane
Stratford CT 06614

Project: CTD 404821
Report to: Walt Sepeda & Jessica Bilyard
Invoice to: CTDAS Pricing, NO ISPform, Bill to HRP
Phone #: 203 380 1395
Fax #:

Project P.O: —

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 3/1/18

Client Sample - Information - Identification

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 metals	SPLP RCRA 8 metals	PCBs 8082	Total Pesticides	SPLP Pesticides	Soil VOA Vials [ ] methanol [X] H2O	GL Soil container 8 oz [ ] oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
960003	HB-1 (0-2')	S	3/1/18	1245	X	X	X	X	X	X	X	X	3	2								
960004	HB-2 (0-2')	S	3/1/18	1300	X	X	X	X	X	X	X	X	3	2								
960005	TB LOW	—	—	—	X								3									
960006	TB HIGH																					

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	3/2/18	908
	TTRUM	3/2/18	1041

Comments, Special Requirements or Regulations:
PCB RLs on each Aroclor < 1 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Cert
☐ GW Protection
☐ SW Protection
☑ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

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

Data Format
☐ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☑ Other EDD

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

State where samples were collected: CT

PHOENIX
Environmental Laboratories, Inc.

Tuesday, March 13, 2018

Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Project ID: CTD 404821
Sample ID#s: BZ96912 - BZ96913

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. 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
UT Lab Registration #CT00007
VT Lab Registration #VT11301

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

NY # 11301

SDG Comments

March 13, 2018

SDG I.D.: GBZ96912

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

PCB Analysis:
As per client request sample was extracted and analyzed past hold.

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

Analysis Report

March 13, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/01/18	9:50
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96912
Phoenix ID: BZ96912

Project ID: CTD 404821
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Arsenic	0.013	0.004	mg/L	1	03/03/18	MA	SW6010C
Barium	1.67	0.002	mg/L	1	03/03/18	MA	SW6010C
Cadmium	0.006	0.001	mg/L	1	03/03/18	MA	SW6010C
Chromium	0.235	0.001	mg/L	1	03/03/18	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/03/18	MA	SW6010C
Barium (Dissolved)	0.227	0.002	mg/L	1	03/03/18	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Chromium (Dissolved)	0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/05/18	RS	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/03/18	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	03/03/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/05/18	RS	SW7470A
Lead	0.329	0.002	mg/L	1	03/03/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/03/18	MA	SW6010C
Extraction of CT ETPH	Completed				03/02/18	P/D	SW3510C/SW3520C
Filtration	Completed				03/02/18	T	0.45um Filter
Mercury Dissolved Digestion	Completed				03/05/18	I/I	SW7470A
Mercury Digestion	Completed				03/05/18	I/I	SW7470A
PCB Extraction (2 Liter)	Completed				03/09/18	N	SW3510C
Semi-Volatile Extraction	Completed				03/02/18	P/D	SW3520C
Dissolved Metals Preparation	Completed				03/02/18	T	SW3005A
Total Metals Digestion	Completed				03/02/18	T/BF	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.070	mg/L	1	03/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	03/05/18	JRB	CTETPH 8015D

Ver 2

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	74		%	1	03/05/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1221	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1232	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1242	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1248	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1254	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1260	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1262	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
PCB-1268	ND	0.048	ug/L	1	03/12/18	AW	SW8082A
QA/QC Surrogates							
% DCBP (Surrogate Rec)	98		%	1	03/12/18	AW	30 - 150 %
% TCMX (Surrogate Rec)	103		%	1	03/12/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Acetone	ND	25	ug/L	1	03/02/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/02/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
m&p-Xylene	1.2	1.0	ug/L	1	03/02/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/02/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Total Xylenes	1.2	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/02/18	MH	70 - 130 %
% Bromofluorobenzene	86		%	1	03/02/18	MH	70 - 130 %
% Dibromofluoromethane	113		%	1	03/02/18	MH	70 - 130 %
% Toluene-d8	94		%	1	03/02/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	03/06/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
Acetophenone	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Aniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Benzidine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Benzoic acid	ND	50	ug/L	1	03/06/18	DD	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Carbazole	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Isophorone	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Phenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	03/06/18	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	03/06/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	03/06/18	DD	15 - 110 %
% Nitrobenzene-d5	56		%	1	03/06/18	DD	30 - 130 %
% Phenol-d5	46		%	1	03/06/18	DD	15 - 110 %
% Terphenyl-d14	97		%	1	03/06/18	DD	30 - 130 %

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	1.0	ug/L	1	03/05/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/05/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Fluoranthene	0.06	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Naphthalene	0.12	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.80	ug/L	1	03/05/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pyrene	0.06	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	03/05/18	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	03/05/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	03/05/18	DD	15 - 110 %
% Nitrobenzene-d5	56		%	1	03/05/18	DD	30 - 130 %
% Phenol-d5	46		%	1	03/05/18	DD	15 - 110 %
% Terphenyl-d14	97		%	1	03/05/18	DD	30 - 130 %

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

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

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

Comments:

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.

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

Phyllis Shiller, Laboratory Director
March 13, 2018
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

March 13, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/01/18	
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96912
Phoenix ID: BZ96913

Project ID: CTD 404821
Client ID: TB

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C

Project ID: CTD 404821
Client ID: TB

Phoenix I.D.: BZ96913

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	03/02/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/02/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/02/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/02/18	MH	70 - 130 %
% Bromofluorobenzene	86		%	1	03/02/18	MH	70 - 130 %
% Dibromofluoromethane	110		%	1	03/02/18	MH	70 - 130 %

Project ID: CTD 404821
Client ID: TB

Phoenix I.D.: BZ96913

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	93		%	1	03/02/18	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:

TRIP BLANK INCLUDED.

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.

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

Phyllis Shiller, Laboratory Director
March 13, 2018
Reviewed and Released by: Maryam Taylor, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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QA/QC Report

March 13, 2018

QA/QC Data

SDG I.D.: GBZ96912

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 421688 (mg/L), QC Sample No: BZ96662 (BZ96912)													
ICP Metals - Dissolved													
Arsenic	BRL	0.004	<0.004	<0.004	NC	94.0			93.4			75 - 125	20
Barium	BRL	0.002	0.004	0.003	NC	97.6			95.7			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	96.2			91.7			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	94.8			92.1			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	93.4			90.7			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	91.1			91.2			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	92.2			91.8			75 - 125	20
QA/QC Batch 421747 (mg/L), QC Sample No: BZ96662 (BZ96912)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	88.2			87.5			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 421680 (mg/L), QC Sample No: BZ96953 (BZ96912)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.0			99.9			75 - 125	20
Barium	BRL	0.002	0.083	0.085	2.40	108			107			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	101			101			75 - 125	20
Chromium	BRL	0.001	0.002	0.002	NC	102			102			75 - 125	20
Lead	BRL	0.002	0.014	0.015	6.90	98.5			98.3			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	89.3			90.9			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	98.4			99.9			75 - 125	20
QA/QC Batch 421749 (mg/L), QC Sample No: BZ97155 (BZ96912)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	93.1			77.9			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%.													

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

QA/QC Report

March 13, 2018

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 421633 (ug/L), QC Sample No: BZ93851 (BZ96912)										
Polychlorinated Biphenyls - Ground Water										
PCB-1016	ND	0.050	104	97	7.0				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	97	94	3.1				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	93	%	99	97	2.0				30 - 150	20
% TCMX (Surrogate Rec)	86	%	101	96	5.1				30 - 150	20
QA/QC Batch 421652 (mg/L), QC Sample No: BZ95717 (BZ96912)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	88	97	9.7				60 - 120	30
% n-Pentacosane	68	%	67	72	7.2				50 - 150	20
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 421651 (ug/L), QC Sample No: BZ96912 (BZ96912)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.50	54	64	16.9				30 - 130	20
2-Methylnaphthalene	ND	0.02	50	60	18.2				30 - 130	20
Acenaphthene	ND	0.02	70	81	14.6				30 - 130	20
Acenaphthylene	ND	0.02	69	81	16.0				30 - 130	20
Anthracene	ND	0.02	84	94	11.2				30 - 130	20
Benz(a)anthracene	ND	0.02	89	101	12.6				30 - 130	20
Benzo(a)pyrene	ND	0.02	78	88	12.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	86	97	12.0				30 - 130	20
Benzo(ghi)perylene	ND	0.02	77	85	9.9				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	84	95	12.3				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	88	99	11.8				30 - 130	20
Chrysene	ND	0.02	81	91	11.6				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	92	102	10.3				30 - 130	20
Dibenzofuran	ND	0.05	68	78	13.7				30 - 130	20
Fluoranthene	ND	0.02	90	99	9.5				30 - 130	20
Fluorene	ND	0.02	78	88	12.0				30 - 130	20
Hexachlorobenzene	ND	0.02	76	87	13.5				30 - 130	20
Hexachlorobutadiene	ND	0.05	40	47	16.1				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	28	32	13.3				30 - 130	20
Hexachloroethane	ND	0.05	38	46	19.0				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	86	95	9.9				30 - 130	20	
Naphthalene	ND	0.02	43	51	17.0				30 - 130	20	
Nitrobenzene	ND	0.05	40	47	16.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	94	105	11.1				30 - 130	20	
Pentachlorophenol	ND	0.20	107	115	7.2				30 - 130	20	
Phenanthrene	ND	0.02	73	83	12.8				30 - 130	20	
Pyrene	ND	0.02	91	102	11.4				30 - 130	20	
Pyridine	ND	0.50	25	21	17.4				30 - 130	20	I
% 2,4,6-Tribromophenol	98	%	93	104	11.2				15 - 110	20	
% 2-Fluorobiphenyl	69	%	57	68	17.6				30 - 130	20	
% 2-Fluorophenol	43	%	25	27	7.7				15 - 110	20	
% Nitrobenzene-d5	59	%	47	57	19.2				30 - 130	20	
% Phenol-d5	43	%	32	32	0.0				15 - 110	20	
% Terphenyl-d14	108	%	97	108	10.7				30 - 130	20	

Comment:

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 421651 (ug/L), QC Sample No: BZ96912 (BZ96912)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5	47	56	17.5				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	33	40	19.2				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	72	79	9.3				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	30	37	20.9				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0	31	37	17.6				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	76	90	16.9				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	72	85	16.6				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	60	69	14.0				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	64	71	10.4				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	104	114	9.2				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	93	104	11.2				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	88	99	11.8				30 - 130	20	
2-Chloronaphthalene	ND	3.5	59	71	18.5				30 - 130	20	
2-Chlorophenol	ND	1.0	37	42	12.7				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	47	51	8.2				30 - 130	20	
2-Nitroaniline	ND	3.5	113	105	7.3				30 - 130	20	
2-Nitrophenol	ND	1.0	48	53	9.9				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	49	54	9.7				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	98	85	14.2				30 - 130	20	
3-Nitroaniline	ND	5.0	104	103	1.0				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	115	129	11.5				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	77	87	12.2				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	78	86	9.8				30 - 130	20	
4-Chloroaniline	ND	3.5	57	55	3.6				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	72	85	16.6				30 - 130	20	
4-Nitroaniline	ND	5.0	76	83	8.8				30 - 130	20	
4-Nitrophenol	ND	1.0	82	81	1.2				15 - 130	20	
Acetophenone	ND	3.5	46	53	14.1				30 - 130	20	
Aniline	ND	3.5	36	35	2.8				30 - 130	20	
Benzidine	ND	4.5	70	<10	NC				30 - 130	20	I
Benzoic acid	ND	10	62	58	6.7				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	89	94	5.5				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	52	60	14.3				30 - 130	20	

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bis(2-chloroethyl)ether	ND	1.0	33	38	14.1				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	29	33	12.9				30 - 130	20
Carbazole	ND	5.0	87	95	8.8				30 - 130	20
Diethyl phthalate	ND	1.5	82	91	10.4				30 - 130	20
Dimethylphthalate	ND	1.5	74	84	12.7				30 - 130	20
Di-n-butylphthalate	ND	1.5	84	93	10.2				30 - 130	20
Di-n-octylphthalate	ND	1.5	105	112	6.5				30 - 130	20
Isophorone	ND	3.5	53	61	14.0				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	24	26	8.0				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	47	54	13.9				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	76	87	13.5				30 - 130	20
Phenol	ND	1.0	35	34	2.9				15 - 130	20
% 2,4,6-Tribromophenol	78	%	75	78	3.9				15 - 110	20
% 2-Fluorobiphenyl	75	%	61	74	19.3				30 - 130	20
% 2-Fluorophenol	34	%	23	25	8.3				15 - 110	20
% Nitrobenzene-d5	56	%	45	51	12.5				30 - 130	20
% Phenol-d5	42	%	32	31	3.2				15 - 110	20
% Terphenyl-d14	100	%	90	102	12.5				30 - 130	20

Comment:

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 421779 (ug/L), QC Sample No: BZ96913 (BZ96912, BZ96913)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	85	84	1.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	83	83	0.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	91	90	1.1				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	81	82	1.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	81	81	0.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	81	81	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	80	80	0.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	90	95	5.4				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	82	82	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	85	87	2.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	82	81	1.2				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	85	93	9.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	85	86	1.2				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	84	83	1.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	85	85	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	79	79	0.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	82	81	1.2				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	83	83	0.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	84	83	1.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	85	82	3.6				70 - 130	30
2,2-Dichloropropane	ND	1.0	83	83	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	80	80	0.0				70 - 130	30
2-Hexanone	ND	5.0	84	85	1.2				70 - 130	30
2-Isopropyltoluene	ND	1.0	90	89	1.1				70 - 130	30
4-Chlorotoluene	ND	1.0	80	79	1.3				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	85	87	2.3				70 - 130	30
Acetone	ND	5.0	85	85	0.0				70 - 130	30
Acrylonitrile	ND	5.0	95	97	2.1				70 - 130	30
Benzene	ND	0.70	78	79	1.3				70 - 130	30

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bromobenzene	ND	1.0	86	84	2.4				70 - 130	30	
Bromochloromethane	ND	1.0	81	82	1.2				70 - 130	30	
Bromodichloromethane	ND	0.50	83	83	0.0				70 - 130	30	
Bromoform	ND	1.0	88	89	1.1				70 - 130	30	
Bromomethane	ND	1.0	112	113	0.9				70 - 130	30	
Carbon Disulfide	ND	1.0	88	88	0.0				70 - 130	30	
Carbon tetrachloride	ND	1.0	82	82	0.0				70 - 130	30	
Chlorobenzene	ND	1.0	82	81	1.2				70 - 130	30	
Chloroethane	ND	1.0	95	94	1.1				70 - 130	30	
Chloroform	ND	1.0	80	81	1.2				70 - 130	30	
Chloromethane	ND	1.0	94	94	0.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	82	81	1.2				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	82	82	0.0				70 - 130	30	
Dibromochloromethane	ND	0.50	91	89	2.2				70 - 130	30	
Dibromomethane	ND	1.0	81	82	1.2				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	107	110	2.8				70 - 130	30	
Ethylbenzene	ND	1.0	80	81	1.2				70 - 130	30	
Hexachlorobutadiene	ND	0.40	86	84	2.4				70 - 130	30	
Isopropylbenzene	ND	1.0	82	81	1.2				70 - 130	30	
m&p-Xylene	ND	1.0	76	76	0.0				70 - 130	30	
Methyl ethyl ketone	ND	5.0	93	93	0.0				70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	103	106	2.9				70 - 130	30	
Methylene chloride	ND	1.0	82	82	0.0				70 - 130	30	
Naphthalene	ND	1.0	91	98	7.4				70 - 130	30	
n-Butylbenzene	ND	1.0	84	83	1.2				70 - 130	30	
n-Propylbenzene	ND	1.0	81	80	1.2				70 - 130	30	
o-Xylene	ND	1.0	81	80	1.2				70 - 130	30	
p-Isopropyltoluene	ND	1.0	84	82	2.4				70 - 130	30	
sec-Butylbenzene	ND	1.0	84	83	1.2				70 - 130	30	
Styrene	ND	1.0	81	82	1.2				70 - 130	30	
tert-Butylbenzene	ND	1.0	83	81	2.4				70 - 130	30	
Tetrachloroethene	ND	1.0	78	79	1.3				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	86	90	4.5				70 - 130	30	
Toluene	ND	1.0	79	80	1.3				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	80	81	1.2				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	81	82	1.2				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	104	105	1.0				70 - 130	30	
Trichloroethene	ND	1.0	80	80	0.0				70 - 130	30	
Trichlorofluoromethane	ND	1.0	90	93	3.3				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	91	91	0.0				70 - 130	30	
Vinyl chloride	ND	1.0	92	93	1.1				70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	101	100	1.0				70 - 130	30	
% Bromofluorobenzene	87	%	97	99	2.0				70 - 130	30	
% Dibromofluoromethane	115	%	103	105	1.9				70 - 130	30	
% Toluene-d8	93	%	99	99	0.0				70 - 130	30	

Comment:

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

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

QA/QC Batch 422367 (ug/L), QC Sample No: BZ99725 (BZ96912)

Polychlorinated Biphenyls - Ground Water

PCB-1016	ND	0.050	110	83	28.0				40 - 140	20	r
PCB-1221	ND	0.050							40 - 140	20	

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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	100	95	5.1				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	128	%	99	114	14.1				30 - 150	20
% TCMX (Surrogate Rec)	95	%	98	86	13.0				30 - 150	20

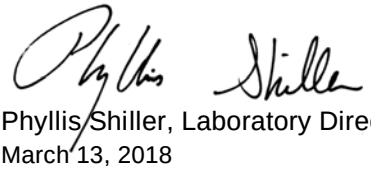
Comment:

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

l = This parameter is outside laboratory LCS/LCSD 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
March 13, 2018

Tuesday, March 13, 2018

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GBZ96912 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ96912	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ96912	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ96912	AS-WM	Arsenic	CT / RSR SWPC (ug/l) / Inorganics	0.013	0.004	0.004	0.004	mg/L
BZ96912	BA-WM	Barium	CT / RSR GWPC (ug/l) / Inorganics	1.67	0.002	1	1	mg/L
BZ96912	CD-WM	Cadmium	CT / RSR GWPC (ug/l) / Inorganics	0.006	0.001	0.005	0.005	mg/L
BZ96912	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.235	0.001	0.05	0.05	mg/L
BZ96912	PB-WM	Lead	CT / RSR GWPC (ug/l) / Inorganics	0.329	0.002	0.015	0.015	mg/L
BZ96912	PB-WM	Lead	CT / RSR SWPC (ug/l) / Inorganics	0.329	0.002	0.013	0.013	mg/L
BZ96913	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ96913	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

Project Location: CTD 404821 ***Project Number:***

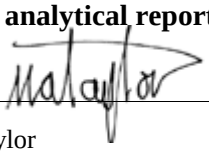
Laboratory Sample ID(s): BZ96912, BZ96913 ***Sampling Date(s):*** 3/1/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 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: SVOA Narration, SVOASIM 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:  **Position:** Project Manager

Printed Name: Maryam Taylor **Date:** Tuesday, March 13, 2018

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

March 13, 2018

SDG I.D.: GBZ96912

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:
In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via 8270 selective ion monitoring (SIM) as well as 8270 full scan.

ICP Metals Narration

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

Instrument:

BLUE 03/02/18 08:54 Mike Arsenault, Chemist 03/02/18

BZ96912

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-XL1 03/05/18-1 Jeff Bucko, Chemist 03/05/18

BZ96912

The initial calibration (ETPH214I) 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 421652 (BZ95717)

BZ96912

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.
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 03/05/18 07:34 Rick Schweitzer, Chemist 03/05/18

BZ96912

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

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Certification Report

March 13, 2018

SDG I.D.: GBZ96912

Mercury Narration

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 421747 (BZ96662)

BZ96912

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%.

Batch 421749 (BZ97155)

BZ96912

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%.

ICP Metals Narration

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

Instrument:

BLUE 03/02/18 08:54 Mike Arsenault, Chemist 03/02/18

BZ96912

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 421680 (BZ96953)

BZ96912

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

Batch 421688 (BZ96662)

BZ96912

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

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Certification Report

March 13, 2018

SDG I.D.: GBZ96912

ICP Metals Narration

PCB Narration

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

Instrument:

AU-ECD3 03/12/18-1 Adam Werner, Chemist 03/12/18

BZ96912

The initial calibration (PC208AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC208BI) 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 421633 (BZ93851)

BZ96912

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.

Batch 422367 (BZ99725)

BZ96912

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: PCB-1016(28.0%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

SVOA Narration

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

QC Batch 421651 (Samples: BZ96912): -----

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

The LCS and/or the LCSD recovery is below the method criteria. A low bias for these analytes is possible. (Benzidine, Bis(2-chloroisopropyl)ether)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (1,3-Dichlorobenzene)

Instrument:

CHEM05 03/06/18-1 Damien Drobinski, Chemist 03/06/18

BZ96912

Initial Calibration Verification (CHEM05/BN_0206):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

March 13, 2018

SDG I.D.: GBZ96912

SVOA Narration

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

Continuing Calibration Verification (CHEM05/0306_02-BN_0206):
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 421651 (BZ96912)

BZ96912

All LCS recoveries were within 30 - 130 with the following exceptions: Bis(2-chloroisopropyl)ether(29%), N-Nitrosodimethylamine(24%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%), N-Nitrosodimethylamine(26%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: 1,3-Dichlorobenzene(20.9%)
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? No.

QC Batch 421651 (Samples: BZ96912): -----

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

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

Instrument:

CHEM04 03/05/18-1 Damien Drobinski, Chemist 03/05/18

BZ96912

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_0118):
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 (CHEM04/0305_02-SIM_0118):

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RCP Certification Report

March 13, 2018

SDG I.D.: GBZ96912

SVOASIM Narration

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 421651 (BZ96912)

BZ96912

All LCS recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(28%), Pyridine(25%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Pyridine(21%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
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 03/02/18-2 Michael Hahn, Chemist 03/02/18

BZ96912, BZ96913

Initial Calibration Verification (CHEM02/VT-P0227A):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 25% (20%), Bromomethane 22% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.044 (0.05), Acetone 0.055 (0.1), Methyl ethyl ketone 0.074 (0.1), Tetrahydrofuran (THF) 0.045 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0302P26-VT-P0227A):
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: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.042 (0.05), Tetrahydrofuran (THF) 0.040 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 421779 (BZ96913)

BZ96912, BZ96913

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.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

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RCP Certification Report

March 13, 2018

SDG I.D.: GBZ96912

VOA Narration

Temperature Narration

The samples were received at 3.7C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ 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 3.7 °C Pg of

Data Delivery:
☐ Fax #:
☒ Email: EDD@HRPAssociates.com

Customer: HRP Associates
Address: 999 Pronoque lane
Stratford CT 06614

Project: CTD 404821
Report to: Walt Sepelak & Jessica Bilyard
Invoice to: CTDAS Pricing, NO ISP 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: 3/1/18

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	Dissolved RCRA-8	PCBs 8082	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml / not 2	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
916912	MW-1	GW	3/1/18	950	X	X	X	X	X	X			3	5	1		1*			*note #1
916913	TB	–	1	–	X															

Relinquished by: Accepted by: Date: 3/2/18 Time: 908
Relinquished by: Accepted by: Date: 3/2/18 Time: 1041

Comments, Special Requirements or Regulations:
PCB RLs on each Arclor 20.1 ppm
*Note #1: Dissolved metals - lab to filter

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Cert
☒ GW Protection
☒ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ 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
☐ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☒ Other EDD

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☒ ~~Other~~ EDD

* SURCHARGE APPLIES

Sarah Bell

From: Jessica A. Bilyard <Jessica.Bilyard@hrpassociates.com>
Sent: Friday, March 09, 2018 10:53 AM
To: Sarah Bell
Subject: RE: PCB

Good point... however, please still run it again, and note on the report that it's out of hold time.

Thanks

Jessica A. Bilyard, CPESC | Senior Project Scientist HRP Associates, Inc.
O 203.380.1395 Ext. 1315

-----Original Message-----
From: Sarah Bell [mailto:sarah@phoenixlabs.com]
Sent: Friday, March 09, 2018 10:48 AM
To: Jessica A. Bilyard
Subject: RE: PCB

Holding time 7 days you took sample 3/1

Sarah Bell
Client Services - Project Manager
Accounts Receivable
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 1-860-645-1102

-----Original Message-----
From: Jessica A. Bilyard [mailto:Jessica.Bilyard@hrpassociates.com]
Sent: Friday, March 09, 2018 10:43 AM
To: Sarah Bell
Subject: RE: PCB

If you have enough sample left, please do. I will also make sure I put it on the COC from now on.

Thanks so much for your help!
Jessica

Jessica A. Bilyard, CPESC | Senior Project Scientist HRP Associates, Inc.
O 203.380.1395 Ext. 1315

-----Original Message-----
From: Sarah Bell [mailto:sarah@phoenixlabs.com]

Sent: Friday, March 09, 2018 10:34 AM
To: Jessica A. Bilyard
Subject: PCB

Jessica,
I talked to the lab and they can't lower the RL now. We would have to re-extract them. Let me know Sarah

Sarah Bell
Client Services - Project Manager
Accounts Receivable
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 1-860-645-1102

PHOENIX
Environmental Laboratories, Inc.

Thursday, March 08, 2018

Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Project ID: CTD 404821
Sample ID#s: BZ96912 - BZ96913

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

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

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

If you 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
UT Lab Registration #CT00007
VT Lab Registration #VT11301

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

NY # 11301

SDG Comments

March 08, 2018

SDG I.D.: GBZ96912

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

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

Analysis Report

March 08, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/01/18	9:50
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96912
Phoenix ID: BZ96912

Project ID: CTD 404821
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Arsenic	0.013	0.004	mg/L	1	03/03/18	MA	SW6010C
Barium	1.67	0.002	mg/L	1	03/03/18	MA	SW6010C
Cadmium	0.006	0.001	mg/L	1	03/03/18	MA	SW6010C
Chromium	0.235	0.001	mg/L	1	03/03/18	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/03/18	MA	SW6010C
Barium (Dissolved)	0.227	0.002	mg/L	1	03/03/18	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Chromium (Dissolved)	0.001	0.001	mg/L	1	03/03/18	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/05/18	RS	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/03/18	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	03/03/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/05/18	RS	SW7470A
Lead	0.329	0.002	mg/L	1	03/03/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/03/18	MA	SW6010C
Extraction of CT ETPH	Completed				03/02/18	P/D	SW3510C/SW3520C
Filtration	Completed				03/02/18	T	0.45um Filter
Mercury Dissolved Digestion	Completed				03/05/18	I/I	SW7470A
Mercury Digestion	Completed				03/05/18	I/I	SW7470A
PCB Extraction	Completed				03/02/18	TN	SW3510C
Semi-Volatile Extraction	Completed				03/02/18	P/D	SW3520C
Dissolved Metals Preparation	Completed				03/02/18	T	SW3005A
Total Metals Digestion	Completed				03/02/18	T/BF	

TPH by GC (Extractable Products)

Ext. Petroleum H.C. (C9-C36)	ND	0.070	mg/L	1	03/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	03/05/18	JRB	CTETPH 8015D

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	74		%	1	03/05/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1221	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1232	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1242	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1248	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1254	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1260	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1262	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
PCB-1268	ND	0.50	ug/L	1	03/06/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	1	03/06/18	AW	30 - 150 %
% TCMX	112		%	1	03/06/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Acetone	ND	25	ug/L	1	03/02/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/02/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
m&p-Xylene	1.2	1.0	ug/L	1	03/02/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/02/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Total Xylenes	1.2	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/02/18	MH	70 - 130 %
% Bromofluorobenzene	86		%	1	03/02/18	MH	70 - 130 %
% Dibromofluoromethane	113		%	1	03/02/18	MH	70 - 130 %
% Toluene-d8	94		%	1	03/02/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	2.5	ug/L	1	03/06/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	03/06/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
Acetophenone	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Aniline	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Benzidine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Benzoic acid	ND	50	ug/L	1	03/06/18	DD	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Carbazole	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Isophorone	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	03/06/18	DD	SW8270D
Phenol	ND	1.0	ug/L	1	03/06/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	03/06/18	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	03/06/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	03/06/18	DD	15 - 110 %
% Nitrobenzene-d5	56		%	1	03/06/18	DD	30 - 130 %
% Phenol-d5	46		%	1	03/06/18	DD	15 - 110 %
% Terphenyl-d14	97		%	1	03/06/18	DD	30 - 130 %

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	1.0	ug/L	1	03/05/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	03/05/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/05/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Fluoranthene	0.06	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Naphthalene	0.12	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.80	ug/L	1	03/05/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pyrene	0.06	0.05	ug/L	1	03/05/18	DD	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	03/05/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	03/05/18	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	03/05/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	03/05/18	DD	15 - 110 %
% Nitrobenzene-d5	56		%	1	03/05/18	DD	30 - 130 %
% Phenol-d5	46		%	1	03/05/18	DD	15 - 110 %
% Terphenyl-d14	97		%	1	03/05/18	DD	30 - 130 %

Project ID: CTD 404821
Client ID: MW-1

Phoenix I.D.: BZ96912

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

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

Comments:

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.

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

Phyllis Shiller, Laboratory Director
March 08, 2018
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

March 08, 2018

FOR: Attn: Walter Sepelak
HRP Associates Inc.
999 Oronoque Ln.
Stratford, CT 06614

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/01/18	
Location Code:	HRPSTRAT	Received by:	SW	03/02/18	10:41
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ96912
Phoenix ID: BZ96913

Project ID: CTD 404821
Client ID: TB

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/02/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C

Project ID: CTD 404821
Client ID: TB

Phoenix I.D.: BZ96913

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	03/02/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/02/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/02/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/02/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/02/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/02/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	03/02/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/02/18	MH	70 - 130 %
% Bromofluorobenzene	86		%	1	03/02/18	MH	70 - 130 %
% Dibromofluoromethane	110		%	1	03/02/18	MH	70 - 130 %

Ver 1

Project ID: CTD 404821
Client ID: TB

Phoenix I.D.: BZ96913

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	93		%	1	03/02/18	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:

TRIP BLANK INCLUDED.

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.

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

Phyllis Shiller, Laboratory Director
March 08, 2018
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

March 08, 2018

QA/QC Data

SDG I.D.: GBZ96912

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 421688 (mg/L), QC Sample No: BZ96662 (BZ96912)													
ICP Metals - Dissolved													
Arsenic	BRL	0.004	<0.004	<0.004	NC	94.0			93.4			75 - 125	20
Barium	BRL	0.002	0.004	0.003	NC	97.6			95.7			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	96.2			91.7			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	94.8			92.1			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	93.4			90.7			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	91.1			91.2			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	92.2			91.8			75 - 125	20
QA/QC Batch 421747 (mg/L), QC Sample No: BZ96662 (BZ96912)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	88.2			87.5			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 421680 (mg/L), QC Sample No: BZ96953 (BZ96912)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.0			99.9			75 - 125	20
Barium	BRL	0.002	0.083	0.085	2.40	108			107			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	101			101			75 - 125	20
Chromium	BRL	0.001	0.002	0.002	NC	102			102			75 - 125	20
Lead	BRL	0.002	0.014	0.015	6.90	98.5			98.3			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	89.3			90.9			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	98.4			99.9			75 - 125	20
QA/QC Batch 421749 (mg/L), QC Sample No: BZ97155 (BZ96912)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	93.1			77.9			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%.													

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

QA/QC Report

March 08, 2018

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 421633 (ug/L), QC Sample No: BZ93851 (BZ96912)										
Polychlorinated Biphenyls - Ground Water										
PCB-1016	ND	0.050	104	97	7.0				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	97	94	3.1				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	93	%	99	97	2.0				30 - 150	20
% TCMX (Surrogate Rec)	86	%	101	96	5.1				30 - 150	20
QA/QC Batch 421652 (mg/L), QC Sample No: BZ95717 (BZ96912)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	88	97	9.7				60 - 120	30
% n-Pentacosane	68	%	67	72	7.2				50 - 150	20
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 421651 (ug/L), QC Sample No: BZ96912 (BZ96912)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.50	54	64	16.9				30 - 130	20
2-Methylnaphthalene	ND	0.02	50	60	18.2				30 - 130	20
Acenaphthene	ND	0.02	70	81	14.6				30 - 130	20
Acenaphthylene	ND	0.02	69	81	16.0				30 - 130	20
Anthracene	ND	0.02	84	94	11.2				30 - 130	20
Benz(a)anthracene	ND	0.02	89	101	12.6				30 - 130	20
Benzo(a)pyrene	ND	0.02	78	88	12.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	86	97	12.0				30 - 130	20
Benzo(ghi)perylene	ND	0.02	77	85	9.9				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	84	95	12.3				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	88	99	11.8				30 - 130	20
Chrysene	ND	0.02	81	91	11.6				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	92	102	10.3				30 - 130	20
Dibenzofuran	ND	0.05	68	78	13.7				30 - 130	20
Fluoranthene	ND	0.02	90	99	9.5				30 - 130	20
Fluorene	ND	0.02	78	88	12.0				30 - 130	20
Hexachlorobenzene	ND	0.02	76	87	13.5				30 - 130	20
Hexachlorobutadiene	ND	0.05	40	47	16.1				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	28	32	13.3				30 - 130	20
Hexachloroethane	ND	0.05	38	46	19.0				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	86	95	9.9				30 - 130	20	
Naphthalene	ND	0.02	43	51	17.0				30 - 130	20	
Nitrobenzene	ND	0.05	40	47	16.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	94	105	11.1				30 - 130	20	
Pentachlorophenol	ND	0.20	107	115	7.2				30 - 130	20	
Phenanthrene	ND	0.02	73	83	12.8				30 - 130	20	
Pyrene	ND	0.02	91	102	11.4				30 - 130	20	
Pyridine	ND	0.50	25	21	17.4				30 - 130	20	I
% 2,4,6-Tribromophenol	98	%	93	104	11.2				15 - 110	20	
% 2-Fluorobiphenyl	69	%	57	68	17.6				30 - 130	20	
% 2-Fluorophenol	43	%	25	27	7.7				15 - 110	20	
% Nitrobenzene-d5	59	%	47	57	19.2				30 - 130	20	
% Phenol-d5	43	%	32	32	0.0				15 - 110	20	
% Terphenyl-d14	108	%	97	108	10.7				30 - 130	20	

Comment:

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 421651 (ug/L), QC Sample No: BZ96912 (BZ96912)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5	47	56	17.5				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	33	40	19.2				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	72	79	9.3				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	30	37	20.9				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0	31	37	17.6				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	76	90	16.9				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	72	85	16.6				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	60	69	14.0				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	64	71	10.4				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	104	114	9.2				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	93	104	11.2				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	88	99	11.8				30 - 130	20	
2-Chloronaphthalene	ND	3.5	59	71	18.5				30 - 130	20	
2-Chlorophenol	ND	1.0	37	42	12.7				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	47	51	8.2				30 - 130	20	
2-Nitroaniline	ND	3.5	113	105	7.3				30 - 130	20	
2-Nitrophenol	ND	1.0	48	53	9.9				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	49	54	9.7				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	98	85	14.2				30 - 130	20	
3-Nitroaniline	ND	5.0	104	103	1.0				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	115	129	11.5				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	77	87	12.2				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	78	86	9.8				30 - 130	20	
4-Chloroaniline	ND	3.5	57	55	3.6				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	72	85	16.6				30 - 130	20	
4-Nitroaniline	ND	5.0	76	83	8.8				30 - 130	20	
4-Nitrophenol	ND	1.0	82	81	1.2				15 - 130	20	
Acetophenone	ND	3.5	46	53	14.1				30 - 130	20	
Aniline	ND	3.5	36	35	2.8				30 - 130	20	
Benzidine	ND	4.5	70	<10	NC				30 - 130	20	I
Benzoic acid	ND	10	62	58	6.7				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	89	94	5.5				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	52	60	14.3				30 - 130	20	

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bis(2-chloroethyl)ether	ND	1.0	33	38	14.1				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	29	33	12.9				30 - 130	20
Carbazole	ND	5.0	87	95	8.8				30 - 130	20
Diethyl phthalate	ND	1.5	82	91	10.4				30 - 130	20
Dimethylphthalate	ND	1.5	74	84	12.7				30 - 130	20
Di-n-butylphthalate	ND	1.5	84	93	10.2				30 - 130	20
Di-n-octylphthalate	ND	1.5	105	112	6.5				30 - 130	20
Isophorone	ND	3.5	53	61	14.0				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	24	26	8.0				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	47	54	13.9				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	76	87	13.5				30 - 130	20
Phenol	ND	1.0	35	34	2.9				15 - 130	20
% 2,4,6-Tribromophenol	78	%	75	78	3.9				15 - 110	20
% 2-Fluorobiphenyl	75	%	61	74	19.3				30 - 130	20
% 2-Fluorophenol	34	%	23	25	8.3				15 - 110	20
% Nitrobenzene-d5	56	%	45	51	12.5				30 - 130	20
% Phenol-d5	42	%	32	31	3.2				15 - 110	20
% Terphenyl-d14	100	%	90	102	12.5				30 - 130	20

Comment:

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 421779 (ug/L), QC Sample No: BZ96913 (BZ96912, BZ96913)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	85	84	1.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	83	83	0.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	91	90	1.1				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	81	82	1.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	81	81	0.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	81	81	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	80	80	0.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	90	95	5.4				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	82	82	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	85	87	2.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	82	81	1.2				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	85	93	9.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	85	86	1.2				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	84	83	1.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	85	85	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	79	79	0.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	82	81	1.2				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	83	83	0.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	84	83	1.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	85	82	3.6				70 - 130	30
2,2-Dichloropropane	ND	1.0	83	83	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	80	80	0.0				70 - 130	30
2-Hexanone	ND	5.0	84	85	1.2				70 - 130	30
2-Isopropyltoluene	ND	1.0	90	89	1.1				70 - 130	30
4-Chlorotoluene	ND	1.0	80	79	1.3				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	85	87	2.3				70 - 130	30
Acetone	ND	5.0	85	85	0.0				70 - 130	30
Acrylonitrile	ND	5.0	95	97	2.1				70 - 130	30
Benzene	ND	0.70	78	79	1.3				70 - 130	30

QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bromobenzene	ND	1.0	86	84	2.4				70 - 130	30
Bromochloromethane	ND	1.0	81	82	1.2				70 - 130	30
Bromodichloromethane	ND	0.50	83	83	0.0				70 - 130	30
Bromoform	ND	1.0	88	89	1.1				70 - 130	30
Bromomethane	ND	1.0	112	113	0.9				70 - 130	30
Carbon Disulfide	ND	1.0	88	88	0.0				70 - 130	30
Carbon tetrachloride	ND	1.0	82	82	0.0				70 - 130	30
Chlorobenzene	ND	1.0	82	81	1.2				70 - 130	30
Chloroethane	ND	1.0	95	94	1.1				70 - 130	30
Chloroform	ND	1.0	80	81	1.2				70 - 130	30
Chloromethane	ND	1.0	94	94	0.0				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	82	81	1.2				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	82	82	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	91	89	2.2				70 - 130	30
Dibromomethane	ND	1.0	81	82	1.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	107	110	2.8				70 - 130	30
Ethylbenzene	ND	1.0	80	81	1.2				70 - 130	30
Hexachlorobutadiene	ND	0.40	86	84	2.4				70 - 130	30
Isopropylbenzene	ND	1.0	82	81	1.2				70 - 130	30
m&p-Xylene	ND	1.0	76	76	0.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	93	93	0.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	103	106	2.9				70 - 130	30
Methylene chloride	ND	1.0	82	82	0.0				70 - 130	30
Naphthalene	ND	1.0	91	98	7.4				70 - 130	30
n-Butylbenzene	ND	1.0	84	83	1.2				70 - 130	30
n-Propylbenzene	ND	1.0	81	80	1.2				70 - 130	30
o-Xylene	ND	1.0	81	80	1.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	84	82	2.4				70 - 130	30
sec-Butylbenzene	ND	1.0	84	83	1.2				70 - 130	30
Styrene	ND	1.0	81	82	1.2				70 - 130	30
tert-Butylbenzene	ND	1.0	83	81	2.4				70 - 130	30
Tetrachloroethene	ND	1.0	78	79	1.3				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	86	90	4.5				70 - 130	30
Toluene	ND	1.0	79	80	1.3				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	80	81	1.2				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	81	82	1.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	104	105	1.0				70 - 130	30
Trichloroethene	ND	1.0	80	80	0.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	90	93	3.3				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	91	91	0.0				70 - 130	30
Vinyl chloride	ND	1.0	92	93	1.1				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	100	1.0				70 - 130	30
% Bromofluorobenzene	87	%	97	99	2.0				70 - 130	30
% Dibromofluoromethane	115	%	103	105	1.9				70 - 130	30
% Toluene-d8	93	%	99	99	0.0				70 - 130	30

Comment:

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

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

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

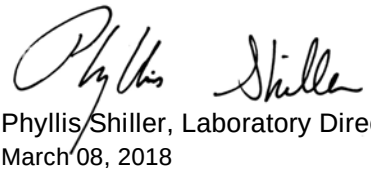
QA/QC Data

SDG I.D.: GBZ96912

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD 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
March 08, 2018

Thursday, March 08, 2018

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GBZ96912 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ96912	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ96912	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ96912	AS-WM	Arsenic	CT / RSR SWPC (ug/l) / Inorganics	0.013	0.004	0.004	0.004	mg/L
BZ96912	BA-WM	Barium	CT / RSR GWPC (ug/l) / Inorganics	1.67	0.002	1	1	mg/L
BZ96912	CD-WM	Cadmium	CT / RSR GWPC (ug/l) / Inorganics	0.006	0.001	0.005	0.005	mg/L
BZ96912	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.235	0.001	0.05	0.05	mg/L
BZ96912	PB-WM	Lead	CT / RSR GWPC (ug/l) / Inorganics	0.329	0.002	0.015	0.015	mg/L
BZ96912	PB-WM	Lead	CT / RSR SWPC (ug/l) / Inorganics	0.329	0.002	0.013	0.013	mg/L
BZ96913	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ96913	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

Project Location: CTD 404821 ***Project Number:***

Laboratory Sample ID(s): BZ96912, BZ96913 ***Sampling Date(s):*** 3/1/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 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: SVOA Narration, SVOASIM Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?**	☑ Yes ☐ No
	b) Were these reporting limits met?	☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in 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:** Thursday, March 08, 2018

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

March 08, 2018

SDG I.D.: GBZ96912

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:
In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via 8270 selective ion monitoring (SIM) as well as 8270 full scan.

ICP Metals Narration

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

Instrument:

BLUE 03/02/18 08:54 Mike Arsenault, Chemist 03/02/18

BZ96912

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-XL1 03/05/18-1 Jeff Bucko, Chemist 03/05/18

BZ96912

The initial calibration (ETPH214I) 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 421652 (BZ95717)

BZ96912

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.
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 03/05/18 07:34 Rick Schweitzer, Chemist 03/05/18

BZ96912

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

March 08, 2018

SDG I.D.: GBZ96912

Mercury Narration

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 421747 (BZ96662)

BZ96912

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%.

Batch 421749 (BZ97155)

BZ96912

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%.

ICP Metals Narration

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

Instrument:

BLUE 03/02/18 08:54 Mike Arsenault, Chemist 03/02/18

BZ96912

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 421680 (BZ96953)

BZ96912

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

Batch 421688 (BZ96662)

BZ96912

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

March 08, 2018

SDG I.D.: GBZ96912

ICP Metals Narration

PCB Narration

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

Instrument:

AU-ECD24 03/05/18-1 Adam Werner, Chemist 03/05/18

BZ96912

The initial calibration (PC208AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC208BI) 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 421633 (BZ93851)

BZ96912

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.

SVOA Narration

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

QC Batch 421651 (Samples: BZ96912): -----

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

The LCS and/or the LCSD recovery is below the method criteria. A low bias for these analytes is possible. (Benzidine, Bis(2-chloroisopropyl)ether)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (1,3-Dichlorobenzene)

Instrument:

CHEM05 03/06/18-1 Damien Drobinski, Chemist 03/06/18

BZ96912

Initial Calibration Verification (CHEM05/SPLIT_0206):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 23% (20%), 4,6-Dinitro-2-methylphenol 23% (20%), Di-n-octylphthalate 26% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.062 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0306_02-SPLIT_0206):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Di-n-octylphthalate 32%H (30%)
The following compounds did not meet maximum % deviations: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

March 08, 2018

SDG I.D.: GBZ96912

SVOA Narration

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 421651 (BZ96912)

BZ96912

All LCS recoveries were within 30 - 130 with the following exceptions: Bis(2-chloroisopropyl)ether(29%), N-Nitrosodimethylamine(24%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%), N-Nitrosodimethylamine(26%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: 1,3-Dichlorobenzene(20.9%)
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? No.

QC Batch 421651 (Samples: BZ96912): -----

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

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

Instrument:

CHEM04 03/05/18-1 Damien Drobinski, Chemist 03/05/18

BZ96912

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_0118):
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 (CHEM04/0305_02-SIM_0118):
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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NY # 11301

RCP Certification Report

March 08, 2018

SDG I.D.: GBZ96912

SVOASIM Narration

QC (Batch Specific):

Batch 421651 (BZ96912)

BZ96912

All LCS recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(28%), Pyridine(25%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Pyridine(21%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
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 03/02/18-2 Michael Hahn, Chemist 03/02/18

BZ96912, BZ96913

Initial Calibration Verification (CHEM02/VT-P0227A):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 25% (20%), Bromomethane 22% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.044 (0.05), Acetone 0.055 (0.1), Methyl ethyl ketone 0.074 (0.1), Tetrahydrofuran (THF) 0.045 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0302P26-VT-P0227A):
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: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.042 (0.05), Tetrahydrofuran (THF) 0.040 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 421779 (BZ96913)

BZ96912, BZ96913

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.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 3.7C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐

CHAIN OF CUSTODY RECORD

Temp 3.7 °C Pg of

PHOENIX
Environmental Laboratories, Inc.

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Client Services (860) 645-8726

Data Delivery:
☐ Fax #:
☒ Email: EDD@HRPAssociates.com

Customer: HRP Associates
Address: 999 Pronoque lane
Stratford CT 06614

Project: CTD 404821
Report to: Walt Sepelak & Jessica Bilyard
Invoice to: CTDAS Pricing, NO ISP 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: 3/1/18

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	Dissolved RCRA-8	PCBs 8082	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
916912	MW-1	GW	3/1/18	950	X	X	X	X	X	X			3	5	1		1*			*Note #1
916913	TB	–	1	–	X															

Relinquished by: **Accepted by:**

Date:	Time:
3/2/18	908
3/2/18	1041

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Cert
☒ GW Protection
☒ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

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

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

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☒ ~~Other~~ EDD

* SURCHARGE APPLIES

Comments, Special Requirements or Regulations:
PCB RLs on each Arclor 20.1 ppm
*Note #1: Dissolved metals - lab to filter

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

State where samples were collected: CT