

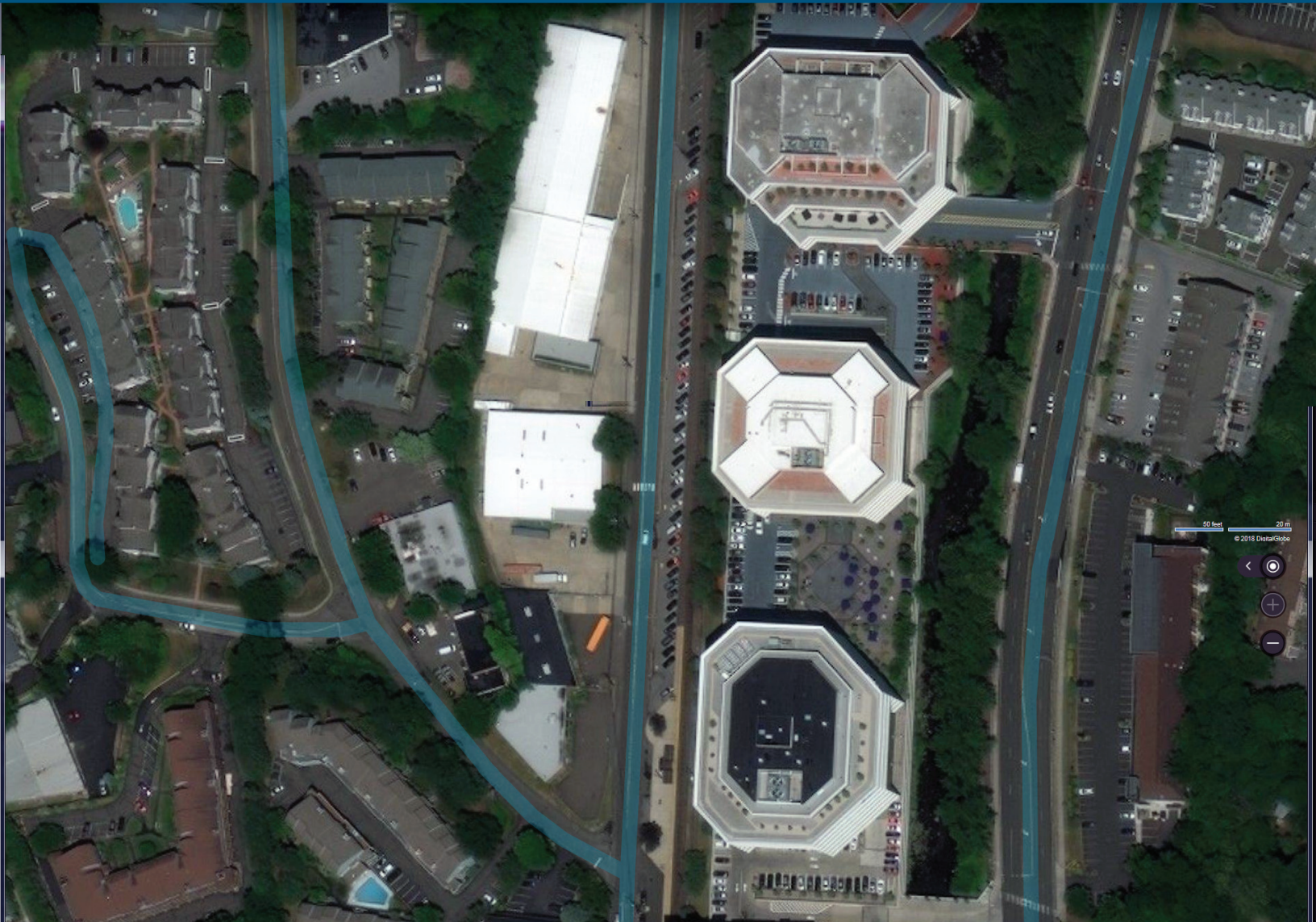


# TASK 210

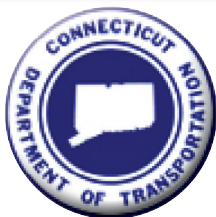
## SUBSURFACE SITE INVESTIGATION REPORT

### MERRITT 7 RAILROAD STATION, NORWALK, CONNECTICUT

CONNDOT PROJECT NUMBER: 302-0014



Prepared for  
**State of Connecticut**  
**Department of Transportation**  
Newington, Connecticut 06111



Prepared by  
**TRC Environmental Corporation**  
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JANUARY 2018

**TASK 210  
SUBSURFACE SITE INVESTIGATION  
REPORT  
MERRITT 7 RAILROAD STATION  
NORWALK, CONNECTICUT  
ConnDOT Project Number: 302-0014**

*Prepared for*

State of Connecticut Department of Transportation  
Newington, Connecticut

*Prepared by*

**TRC**  
Windsor, Connecticut

TRC Project No. 237612.005411.000210

January 2018

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## 1.0 INTRODUCTION

### 1.1 Overview

Pursuant to TRC's Connecticut Department of Transportation (ConnDOT) Contract for On-Call Environmental Services, TRC performed a Task 210 Subsurface Site Investigation for the Merritt 7 Railroad Station Improvements Project located in Norwalk, Connecticut (Figure 1). This investigation was conducted as part of the preliminary activities associated with the proposed construction of railroad station improvements under ConnDOT project number 302-0014. Specifically, this investigation was conducted within or in the immediate vicinity of proposed work areas to determine soil and groundwater quality to anticipated excavation depths.

### 1.2 Objectives

The primary objectives of this Task 210 site investigation were to:

- Determine soil quality in the project area;
- Determine groundwater quality in the project area;
- Utilize the gathered data to determine how best to manage soil and groundwater during excavation activities, and whether Plans and Specifications are required for the impending construction activities.

The analytical results of the soil sampling conducted as part of this Task 210 have been compared to the numerical criteria set forth in Connecticut's Remediation Standard Regulations (RSRs) in order to determine the relative magnitude of potential impacts. This evaluation of the data will aid in managing the materials encountered during the excavation activities. Note that groundwater was not encountered in any of the soil borings advanced as part of this investigation. As such, no groundwater samples could be collected.

### 1.3 Background

Based on a review of project plans provided to TRC by ConnDOT, the Merritt 7 Railroad Station Improvements project includes the construction of a new elevated station platform along the western side of the existing railroad tracks, a new pedestrian overpass structure that will span the existing tracks and the creation of additional parking areas along and adjacent to Glover Avenue, and full-depth reconstruction of Glover Avenue which will involve the relocation of overhead utilities, drainage improvements and new curbing and sidewalk on both sides of Glover Avenue. A review of project plans indicates the maximum depth of excavation across the project area is eleven feet below grade.

#### 1.4 Geologic/Physical Setting

According to information provided on the Surficial Materials Map of Connecticut, the area west of Glover Avenue is underlain by thin till. Areas of thin till are characterized as being where till is less than 10 to 15 feet thick and includes areas of bedrock outcrops. The area east of Glover Avenue is underlain by sand and gravel.

Based on the descriptions of the soil cores collected during the Task 210 field investigation, the site is generally underlain by sand and silt with varying amounts of gravel.

As indicated by the Bedrock Geological Map of Connecticut (Rogers, 1985), bedrock in the project area is comprised of the Trap Falls Formation, which is characterized as gray to silvery, partly rusty- weathering, medium-grained schist, and Ordovician Granitic gneiss, which is characterized as light colored foliated granitic gneiss.

The topography in the immediate project area slopes gently to the east. Groundwater generally flows from high topographic points to low topographic points, but can also be heavily influenced by aquifer type, depth to bedrock, nearby watercourses, groundwater use (e.g., withdrawal wells) and subsurface structures. Based on the local topography and features, groundwater is anticipated to flow to the east, toward the Norwalk River, which flows generally north to south along the eastern project limits. According to the July 2017 report titled *Geotechnical Engineering Report – Merritt 7 Railroad Station Improvements*, prepared by CHA Consulting, Inc. (CHA), groundwater was encountered in borings advanced throughout the

project area at depths ranging from 3.8 to 12.1 feet below grade (ftbg). Note that groundwater was not encountered in any boring advanced as part of this Task 210 Investigation.

According to the Connecticut Department of Energy and Environmental Protection (CTDEEP) groundwater classification maps reviewed by TRC, groundwater beneath the site is classified as “GA”. GA classification indicates that groundwater is suitable for direct human consumption without treatment. The Norwalk River is a Class B surface water body. Class B surface water is suitable for recreational use, fish and wildlife habitat, agricultural and industrial supply, and other legitimate uses (including navigation).

## 2.0 TECHNICAL APPROACH

This section of the report summarizes the soil sampling methods employed during the Task 210 field investigation. Observations made in the field are also summarized in this section.

As indicated above, the focus of the Task 210 Subsurface Site Investigation was to characterize soils in the proposed development areas of the Norwalk Merritt 7 Railroad Station project. Specifically, the proposed soil boring locations were selected in order to characterize the soils in the aforementioned project areas to the anticipated excavation depths. A total of 17 soil borings were advanced within the project areas.

A total of 18 soil samples (including one duplicate) were collected from the 17 soil borings and submitted to the laboratory for analysis. A field rinsate blank and a solvent blank were submitted to the laboratory for analysis. The 17 soil samples (including the duplicate soil sample) and field rinsate blank were submitted to the laboratory for analysis of the following:

- VOCs by EPA Method 8260 (with Method 5035 field preservation for soil samples);
- SVOCs by EPA Method 8270;
- Extractable total petroleum hydrocarbons (ETPH) by Connecticut's 2001 Method;
- Polychlorinated biphenyls by EPA Method 8082;
- Total RCRA 8 metals by EPA Methods 6010/7471; and
- Synthetic precipitation leaching procedure (SPLP) RCRA 8 metals by EPA Methods 6010/7470.

The solvent blank was submitted for VOC analysis only. All samples were analyzed by Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut in accordance with Connecticut's Reasonable Confidence Protocols (RCP).

### 2.1 Preliminary Activities

Prior to beginning the investigation, TRC marked the proposed boring locations at the site with white paint on the ground surface. "Call Before You Dig" (CBYD) was contacted to mark the locations of buried utilities in the proposed work zones. In addition, a private utility mark-out service (Underground Surveying of Brookfield, CT) was contracted to conduct a more detailed mark-out given the presence of several utilities within the work areas. Preliminary

activities also included the preparation of a Health and Safety Plan (HASP) to address the field work to be completed as part of this Task 210.

## 2.2 Soil Boring Program

### ***Methodology***

A total of 16 soil borings were advanced within the project area on October 27, 2017 by Glacier Drilling, LLC (Glacier) of Durham, Connecticut, under the direct supervision of TRC personnel. One additional boring was advanced by Glacier within the foot print of the proposed railroad station building on November 27, 2017. The borings completed on October 27, 2017 were advanced utilizing a track-mounted GeoProbe™ Model 6610D. The boring completed on November 27, 2017 was advanced with a track-mounted GeoProbe™ Model 7822 DT. Dependent upon the particular sample location, soil cores were collected continuously from the ground surface to a maximum depth of ten ftbg. Total boring depths were determined based on the anticipated excavation depths during the construction project. .

Each five-foot soil core was collected in an acetate Macro-Core® liner and was logged with respect to soil characteristics (i.e., grain size, moisture content and any other physical characteristics) and indications of potential impacts (e.g., stains and odors). In addition, each core was field-screened using a photo ionization detector (PID). Based on the field screening results, a single soil sample was then collected from a selected two-foot interval for laboratory analysis. Soil boring logs are presented in Appendix A. The soil boring/sampling locations are shown on the attached plans designated ENV-01 through ENV-05.

Soil samples submitted to the laboratory for VOC analysis were collected in accordance with EPA Method 5035. This method outlines the collection of soil samples, without homogenization and with minimal disturbance, and transfer into extraction solvents. The remaining soil was then homogenized utilizing dedicated/decontaminated stainless steel bowls and spoons, placed in the appropriate laboratory-supplied sample containers and then placed on ice, in a cooler, for delivery to the laboratory.



The probe shoe and Macro-Core<sup>®</sup> sampler were decontaminated between uses to minimize the potential for cross-contamination. The decontamination was completed by washing with an Alconox and tap water mixture, followed by a tap water rinse and a final deionized water rinse.

### ***Field Observations***

Based on the descriptions of the soil cores, the site is underlain primarily by fine to coarse sand and silt with varying amounts of fine gravel. Drilling refusal was encountered in borings SB-3 (9 ftbg), SB-10 (9 ftbg), SB-11(7 ftbg), SB-12 (7 ftbg), SB-13 (8 ftbg), SB-14 (4 ftbg), and SB-17 (7 ftbg). Note that at the SB-17 location, numerous offsets were attempted to reach the proposed excavation depth (11 ftbg) in that area, however, drilling refusal was encountered between 5 and 7 ftbg in each case. Groundwater was not encountered in any of the soil borings.

Each soil core was screened with a PID for volatile organic vapors. A slightly elevated PID reading (0.2 parts per million (ppm)), in conjunction with a one-inch thick layer of dark stained soil, was observed in the soil at approximately 1 ftbg in boring SB-11. No odors, staining or elevated PID reading were observed in any of the other soil cores collected as part of this investigation.

### 2.3 Quality Assurance/Quality Control Samples

Quality assurance/quality control (QA/QC) samples were collected as part of the Task 210 subsurface investigation. In order to determine the effectiveness of the decontamination of the sampling equipment, an equipment rinsate blank was collected and analyzed for the same analyses as the primary samples submitted on the day of the sampling. The equipment rinsate blank was collected by pouring laboratory-supplied water over and/or through the sampling equipment used in the collection of the soil and groundwater samples. The rinsate water was then collected into the appropriate laboratory-supplied sample containers. The equipment rinsate blank associated with the soil sampling program was designated as “EB102717”.

As part of this sampling program, a solvent blank was submitted to evaluate the effect of sample storage and shipment on sample integrity for the soil samples collected for VOC analysis. Furthermore, the solvent blank was used to ensure that proper sample container preparation and handling procedures were utilized following EPA 5035 Method protocols for field preservation of VOC soil samples. Vials of methanol and de-ionized water to be used for VOC soil sampling were prepared by the laboratory; the solvent blank was designated as “SB102717”.

Duplicate samples are two separate samples taken from the same source. The procedure for collecting a duplicate sample consists of alternating the collection of the sample between the primary sample bottle and the duplicate bottle. As a part of this subsurface site investigation, one duplicate soil sample was collected. The duplicate soil sample collected as part of the soil sampling program was identified as SB-04A, which was a duplicate of the soil sample SB-04.

### **3.0 INVESTIGATION RESULTS**

The following sections provide a summary of the analytical results related to the soil sampling conducted at the site. A total of 18 soil samples (including one duplicate) were collected and analyzed for VOCs, SVOCs, ETPH, PCBs, total RCRA 8 metals, and SPLP RCRA 8 metals. The soil analytical results are summarized in Table 1.

Although the project site is not subject to the Transfer Act, the Voluntary Cleanup Program, nor the requirements of a Consent Order, the analytical results were compared to the Connecticut RSRs to evaluate the levels of any detected contaminants within the investigated areas. This allows for management of contaminated media in a manner consistent with applicable regulations. The reported concentrations for soils were compared to the Residential Direct Exposure Criteria (RES DEC) and the GA Pollutant Mobility Criteria (PMC) under the RSRs. The Industrial/Commercial (I/C) criteria are not technically applicable at a site unless an Environmental Land Use Restriction (ELUR) is implemented.

#### **3.1 Soil Sample Results**

A summary of the soil sample analytical results is presented in Table 1. Copies of the laboratory analytical reports for the soil samples is included as Appendix B.

##### ***VOCs***

As indicated in the results summary in Table 1, the VOC naphthalene was detected in the soil sample collected from boring SB-11 from 1 to 3 ftbg. The reported concentration, 4,900 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), does not exceed the RES DEC or the GA PMC. VOCs were not detected in any of the other samples.

##### ***SVOCs***

As indicated in the results summary in Table 1, numerous SVOCs were detected above the laboratory reporting limits in six of the 18 soil samples collected during this subsurface investigation. The reported concentrations of SVOCs exceeded the RES DEC, GA PMC or both

in the soil samples collected from SB-04 (collected from 2 to 4 ftbg), SB-11 (collected from 1 to 3 ftbg) and SB-12 (collected from 1 to 3 ftbg).

### ***ETPH***

As indicated in the results summary in Table 1, ETPH was detected above the laboratory reporting limits in six of the soil samples, at concentrations ranging from 79 milligrams per kilogram (mg/kg) to 210 mg/kg. None of the reported ETPH concentrations exceeded the RES DEC or GA PMC.

### ***PCBs***

As indicated in Table 1, PCBs were not reported above analytical detection limits in any of the soil samples collected.

### ***Total RCRA 8 Metals***

As indicated in Table 1, several metals (arsenic, barium, cadmium, chromium, lead and mercury) were detected in several of the soil samples, as follows:

- Arsenic was detected at concentrations ranging from 2.28 mg/kg to 37.2 mg/kg;
- Barium was detected at concentrations ranging from 61.8 mg/kg to 136 mg/kg;
- Cadmium was detected at concentrations ranging from 0.36 mg/kg to 0.49 mg/kg;
- Chromium was detected at concentrations ranging from 16.7 mg/kg to 37.8 mg/kg;
- Lead was detected at concentrations ranging from 3.41 mg/kg to 45.1 mg/kg; and
- Mercury was detected at concentrations ranging from 0.03 mg/kg to 0.07 mg/kg.

The reported concentration of arsenic exceeded the RES DEC in the sample collected from SB-06 from 2 to 4 ftbg (see Table 1). The reported concentrations of total barium, cadmium, chromium, lead and mercury were all below the RES DEC.

### ***SPLP RCRA 8 Metals Plus***

As indicated in Table 1, leachable concentrations of the metals arsenic, barium, chromium and lead were detected in several of the soil samples, as follows:

- SPLP arsenic was detected at concentrations ranging from 0.013 milligrams per liter (mg/l) to 0.153 mg/l;
- SPLP barium was detected at concentrations ranging from 0.011 mg/l to 0.066 mg/l;
- SPLP chromium was detected at concentrations ranging from 0.012 mg/l to 0.098 mg/l; and
- SPLP lead was detected at concentrations ranging from 0.022 mg/l to 0.035 mg/l.

The reported concentration of leachable arsenic exceeded the GA PMC in the soil sample collected from SB-06 from 2 to 4 ftbg. The reported concentration of SPLP chromium exceeded the GA PMC in the soil sample collected from SB-11 from 1 to 3 ftbg. Leachable lead concentrations in the soil samples collected from SB-01 (from 1 to 3 ftbg), SB-04 (from 2 to 4 ftbg) and SB-06 (from 2 to 4 ftbg) also exceeded the GA PMC.

### 3.2 Quality Assurance / Quality Control Sample Results

As indicated in Section 2.3, an equipment blank, solvent blank and duplicate sample were submitted to the laboratory as part of this sampling program for quality assurance/quality control purposes. The equipment blank exhibited a low concentration (0.05 µg/l) of the SVOC benz(a)anthracene. The presence of benz(a)anthracene in the equipment blank suggests that a small portion of that compound detected in the soil samples may be due to influences from the sampling equipment. No other compounds were detected above reporting limits in the field blanks associated with the investigation. VOCs were not reported above analytical detection limits in the solvent blank associated with the soil sampling.

The concentrations of constituents reported in the duplicate soil samples varied very slightly from those detected in the primary samples. The minimal variation in the reported

constituents indicates that the samples were adequately homogenized in the field and the laboratory's processing of the samples was consistent.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

This section briefly summarizes the findings of the Task 210 site investigation activities conducted at the site in October and November of 2017. Also included are recommendations based on these findings/conclusions.

### 4.1 Soil

1. Most of the soil borings drilled within the project area were advanced to anticipated excavation depths. Drilling refusal was encountered in seven of the borings at depths ranging between 4 and 7 ftbg. In general, the soils at the site can be characterized as fine to coarse sand and silt with some fine gravel.
2. The VOC naphthalene was detected at a concentration of 4,900 in the soil sample SB-11, which does not exceed the RES DEC or the GA PMC. The reported concentrations of SVOCs exceeded the RES DEC, GA PMC, or both in four of the soil samples collected. ETPH was detected in six of the soil samples at concentrations that do not exceed the RES DEC or the GA PMC. PCBs were not reported above analytical detection limits in any of the samples. One or more of the metals arsenic, barium, cadmium, chromium, lead and mercury were detected in each of the soil samples collected as part of this investigation. The reported concentration of arsenic exceeded the RES DEC in the soil sample SB-06. The reported concentration of leachable arsenic exceeded the GA PMC in the soil sample SB-06. The reported concentration of SPLP chromium exceeded the GA PMC in the soil sample SB-11. SPLP lead concentrations exceeded the GA PMC in the soil samples SB-01, SB-04 and SB-06.

Recommendation: Based on the results of this investigation, TRC recommends that appropriate Plans, Specifications, and Estimate (Task 310) be prepared at this time. It is recommended that a Notice To Contractor be prepared to notify all redevelopment contractors of the presence of impacted material. In addition, Controlled Materials management and health and safety specifications are warranted.

### 4.2 Groundwater

1. As previously indicated, groundwater was not encountered in any of the borings advanced as part of this investigation. According to information obtained from the

CHA geotechnical investigation conducted within the project area, groundwater may be encountered at some project locations during the construction project. Specifically, the project design team has indicated that groundwater will most likely be encountered during excavation for the western tower of the pedestrian overpass structure.

2. While no groundwater data is available, no field observations (i.e., elevated PID readings, staining or odors) of soil impacts were observed within the soil cores collected from the SB-17 location (including from multiple offset attempts within the immediate area) to depths up to 7 ftbg. In addition, VOCs, SVOCs, ETPH, PCBs and SPLP RCRA 8 metals were not reported above analytical detection limits in the soil sample collected from SB-17. The reported concentrations of total RCRA 8 metals in this sample were well below the RES DEC.

Recommendation: While groundwater was not encountered during this investigation, the CHA geotechnical investigation conducted within the project area indicates that groundwater may be encountered during construction of the western tower of the pedestrian overpass structure. As such, dewatering activities may be required. Field observations and analytical data from soil cores collected within this area are not indicative of a potential source of groundwater contamination. As such, dewatering wastewater can most likely be managed under the CTDEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction activities (GP-015)*. The Notice To Contractor prepared for this project should address the need to characterize and manage potentially contaminated dewatering wastewater, in the event that it is encountered during the construction project.



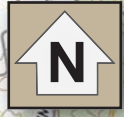
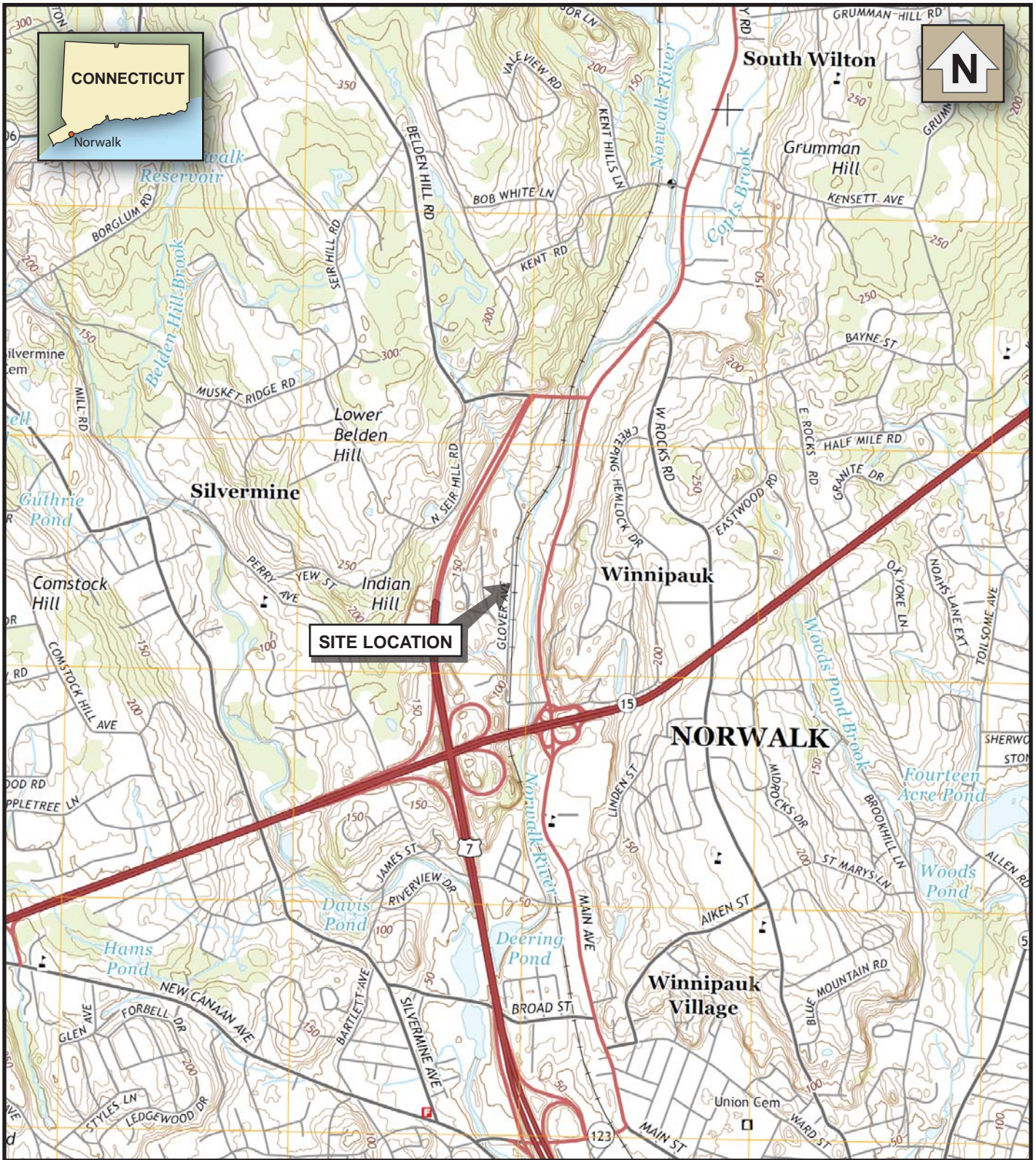
## 5.0 REFERENCES

Rogers, J. 1985. Bedrock Geological Map of Connecticut. State Geological and Natural History of Connecticut. Scale 1:125,000.

Stone, J.R. 1992. Surficial Materials Map of Connecticut. U.S. Department of the Interior, U.S. Geological Survey. Scale 1:125,000.

July 2017. Revised Geotechnical Engineering Report – Merritt 7 Railroad Station Improvements. CHA Consulting, Inc.

## **FIGURES**



**SITE LOCATION**



1:24000  
BASE CREATED WITH TOPO®  
7.5' USGS TOPOGRAPHIC MAPS  
NORWALK NORTH, CT-NY QUADRANGLE



21 Griffin Road North  
Windsor, CT 06095  
Phone: 860.298.9692

**NORWALK MERRITT 7 RAILROAD STATION**  
NORWALK, CONNECTICUT  
STATE PROJECT NO. 302-0014

**FIGURE 1**  
**SITE LOCATION MAP**

DATE: 06/2017 PROJECT NO. 237612.5411.000910

N/F  
25 GLOVER  
PARTNERS, LLC  
801 MAIN AVE

B.M. C Elev. 94.14  
TOP EASTERLY BOLT ON HYDRANT  
NAVD 1988



N/F  
35 GLOVER  
PARTNERS, LLC  
901 MAIN AVE

SUBJECT TO AN EASEMENT FOR  
WATER TRANSMISSION IN FAVOR  
OF FIRST DISTRICT WATER.

MULTIPLE STY  
COMMERCIAL  
BLDG

SUBJECT TO AN EASEMENT AND POSSIBLE  
RIGHT TO USE LAND OF 45 GLOVER  
PARTNERS LLC ET AL FOR ACCESS,  
UTILITIES AND DRAINAGE

54 LF 15" RCP  
S = 0.50%

TYPE "C" CATCH BASIN  
STA. 14+58.1, 21.0' RT  
TF = 90.60  
IN INV. S = 85.96 (ex)  
OUT INV. N = 85.96

TYPE "C" CATCH BASIN  
STA. 62+57.0, 26.9' RT  
TF = 92.75  
IN INV. S = 88.66 (ex)  
OUT INV. N = 87.46

29 LF 15" RCP  
S = 4.51%

CONC. ENDWALL  
INVERT = 85.01

22 LF 48" RCP  
S = 2.50%

DRAINAGE MANHOLE (6' DIA.)  
STA. 15+60.2, 57.2' LT  
TF = 90.3  
IN INV. W = 84.46  
IN INV. S = 86.15  
OUT INV. E = 84.21

TYPE "C" CATCH BASIN  
DOUBLE GRATE - TYPE II  
STA. 15+66.0, 15.4' LT  
TF = 90.12  
INV. E = 86.50

6 LF 15" RCP  
S = 4.50%

DRAINAGE MANHOLE (5' DIA.)  
STA. 15+61.4, 6.5' LT  
TF = 90.4  
IN INV. W = 86.23  
OUT INV. E = 86.03

MATCH MARK - SEE DRAWING NO. GRD-002

TYPE "C" CATCH BASIN  
STA. 16+18.8, 25.8' RT  
TF = 90.65  
OUT INV. S = 86.00

51 LF 12" RCP  
S = 1.47%

18 LF 15" RCP  
S = 2.67%

OFFSET TYPE "C" CATCH BASIN  
STA. 15+62.9, 15.9' RT  
TF = 90.10  
IN INV. W = 85.55  
OUT INV. E = 85.30

4 LF 15" RCP  
S = 1.25%

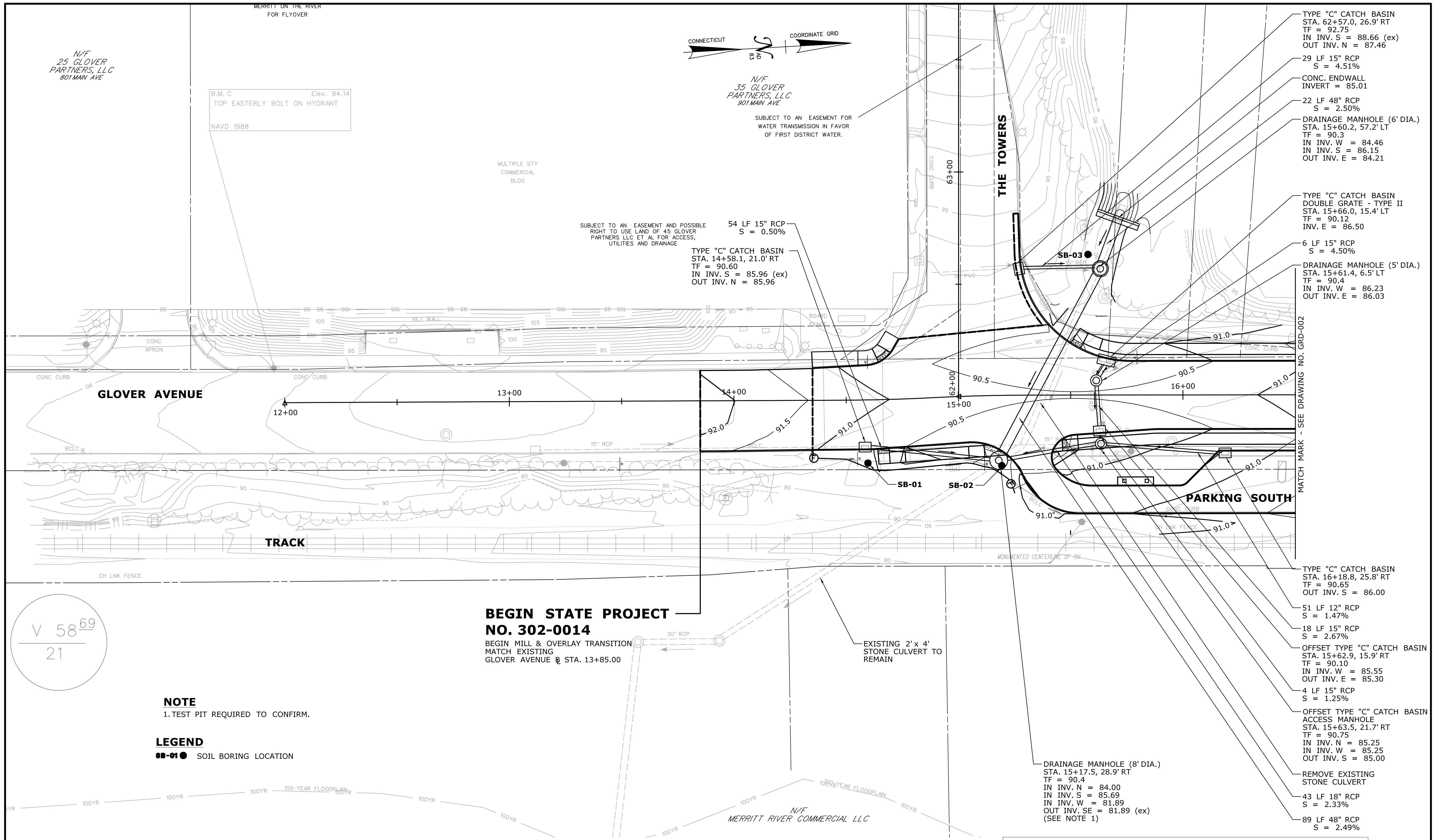
OFFSET TYPE "C" CATCH BASIN  
ACCESS MANHOLE  
STA. 15+63.5, 21.7' RT  
TF = 90.75  
IN INV. N = 85.25  
IN INV. W = 85.25  
OUT INV. S = 85.00

REMOVE EXISTING  
STONE CULVERT

43 LF 18" RCP  
S = 2.33%

89 LF 48" RCP  
S = 2.49%

DRAINAGE MANHOLE (8' DIA.)  
STA. 15+17.5, 28.9' RT  
TF = 90.4  
IN INV. N = 84.00  
IN INV. S = 85.69  
IN INV. W = 81.89  
OUT INV. SE = 81.89 (ex)  
(SEE NOTE 1)



**GLOVER AVENUE**

**TRACK**

**PARKING SOUTH**

**BEGIN STATE PROJECT  
NO. 302-0014**

BEGIN MILL & OVERLAY TRANSITION  
MATCH EXISTING  
GLOVER AVENUE @ STA. 13+85.00

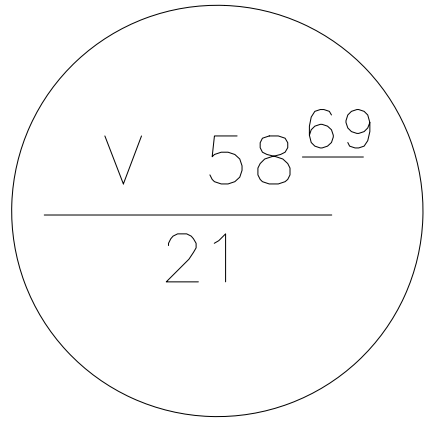
EXISTING 2' x 4'  
STONE CULVERT TO  
REMAIN

**NOTE**

1. TEST PIT REQUIRED TO CONFIRM.

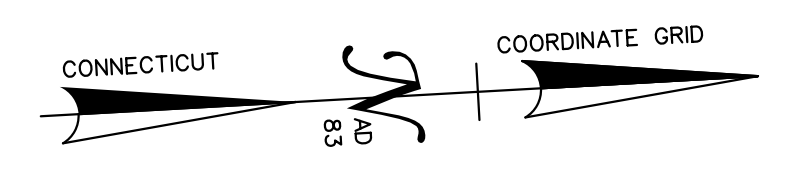
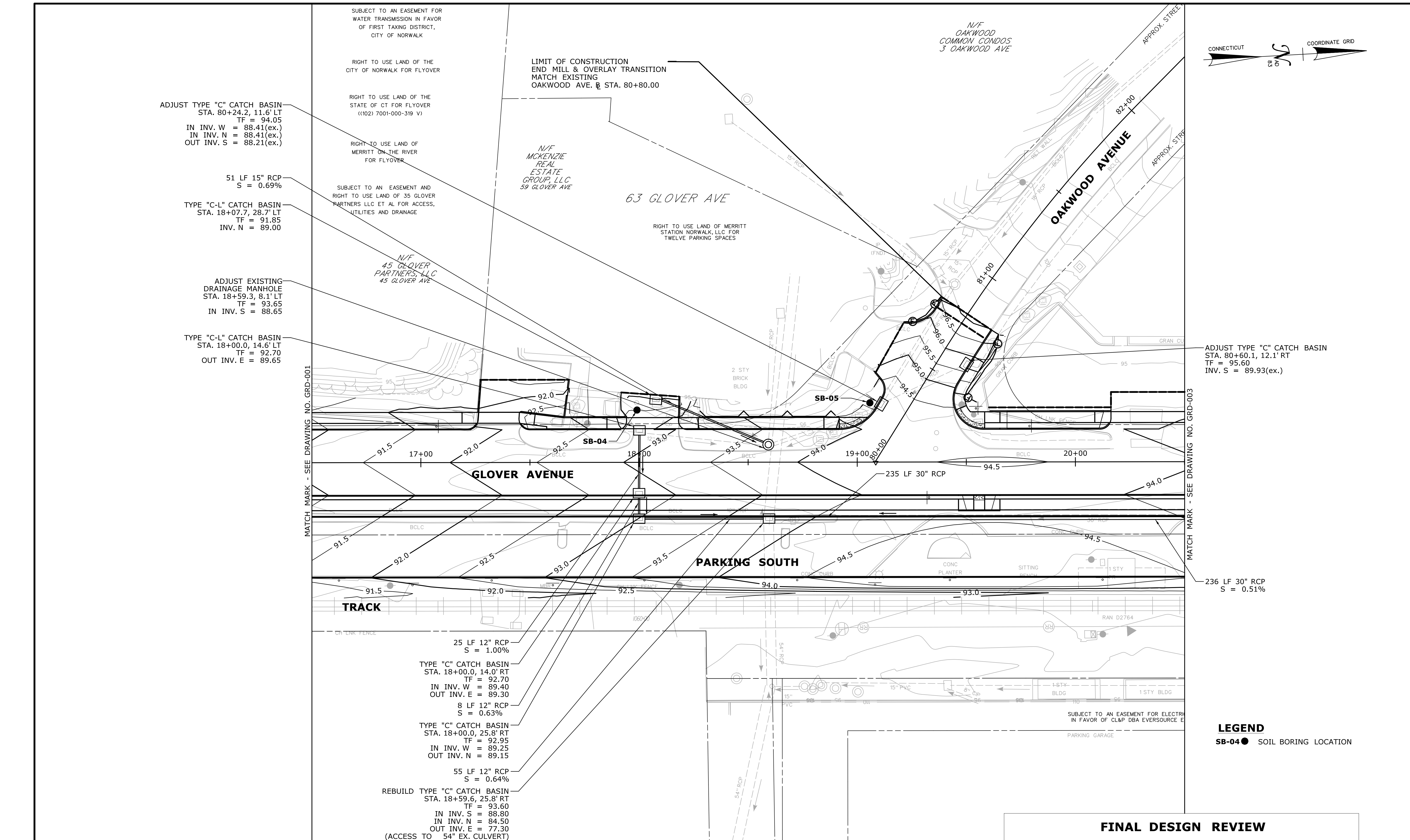
**LEGEND**

● SOIL BORING LOCATION



**FINAL DESIGN REVIEW**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>CL/KH</b> CHECKED BY: <b>DM</b> SCALE IN FEET 0 20 40 SCALE 1"=20' Plotted Date: 12/14/2017	<b>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</b> Filename: ...FD_ENV_302-0014_EN001.dgn	SIGNATURE/ BLOCK:	PROJECT TITLE: <b>MERRITT 7 RAILROAD STATION IMPROVEMENTS</b>	TOWN: <b>NORWALK</b>	PROJECT NO.: <b>302-0014</b> DRAWING NO.: <b>ENV-001</b> SHEET NO.:
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	<b>SOIL BORING LOCATION PLAN</b>			



ADJUST TYPE "C" CATCH BASIN  
STA. 80+24.2, 11.6' LT  
TF = 94.05  
IN INV. W = 88.41(ex.)  
IN INV. N = 88.41(ex.)  
OUT INV. S = 88.21(ex.)

51 LF 15" RCP  
S = 0.69%

TYPE "C-L" CATCH BASIN  
STA. 18+07.7, 28.7' LT  
TF = 91.85  
INV. N = 89.00

ADJUST EXISTING DRAINAGE MANHOLE  
STA. 18+59.3, 8.1' LT  
TF = 93.65  
IN INV. S = 88.65

TYPE "C-L" CATCH BASIN  
STA. 18+00.0, 14.6' LT  
TF = 92.70  
OUT INV. E = 89.65

ADJUST TYPE "C" CATCH BASIN  
STA. 80+60.1, 12.1' RT  
TF = 95.60  
INV. S = 89.93(ex.)

MATCH MARK - SEE DRAWING NO. GRD-001

MATCH MARK - SEE DRAWING NO. GRD-003

25 LF 12" RCP  
S = 1.00%

TYPE "C" CATCH BASIN  
STA. 18+00.0, 14.0' RT  
TF = 92.70  
IN INV. W = 89.40  
OUT INV. E = 89.30

8 LF 12" RCP  
S = 0.63%

TYPE "C" CATCH BASIN  
STA. 18+00.0, 25.8' RT  
TF = 92.95  
IN INV. W = 89.25  
OUT INV. N = 89.15

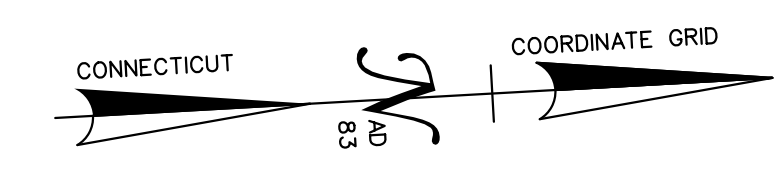
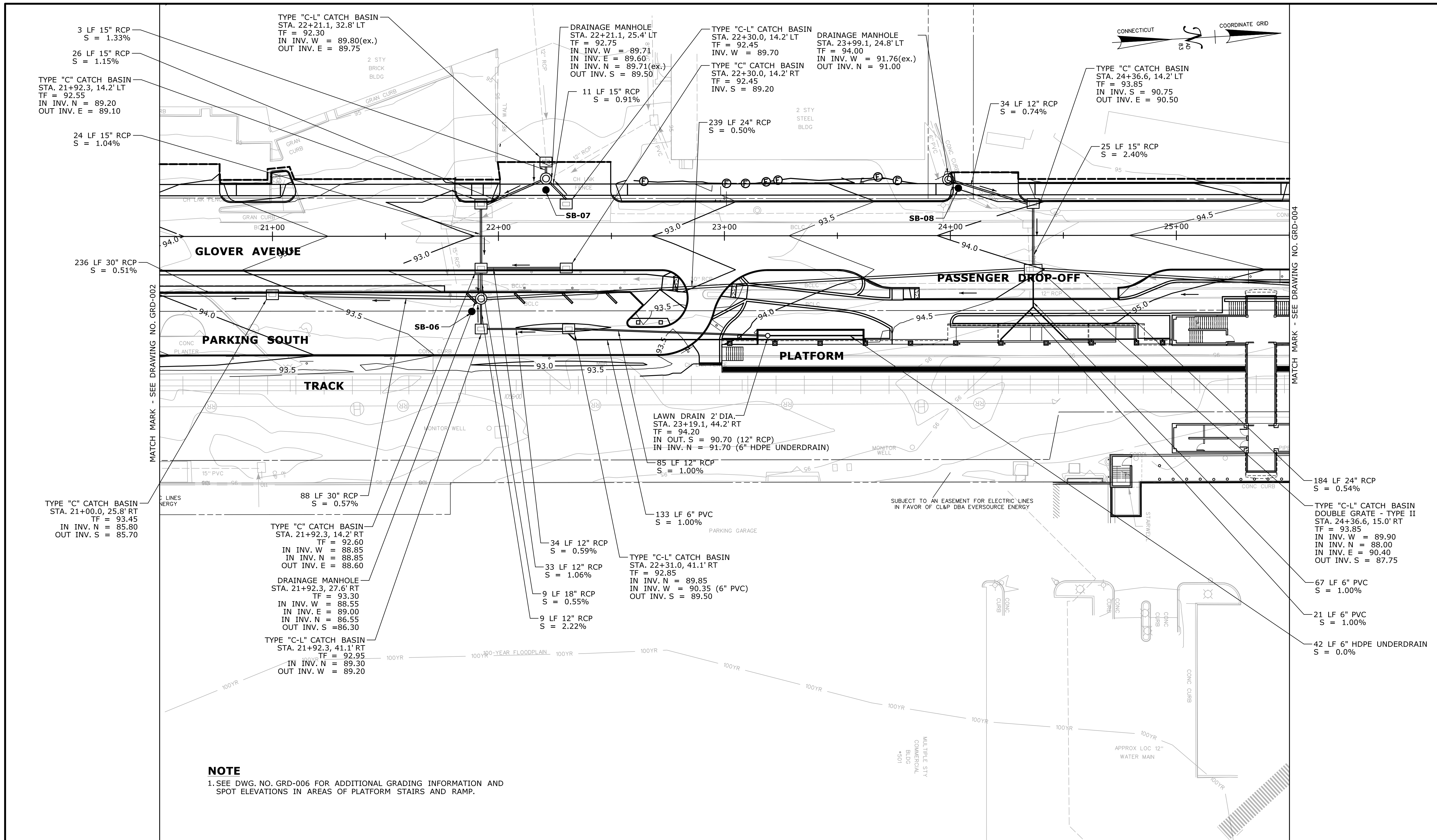
55 LF 12" RCP  
S = 0.64%

REBUILD TYPE "C" CATCH BASIN  
STA. 18+59.6, 25.8' RT  
TF = 93.60  
IN INV. S = 88.80  
IN INV. N = 84.50  
OUT INV. E = 77.30  
(ACCESS TO 54" EX. CULVERT)

**LEGEND**  
SB-04 ● SOIL BORING LOCATION

**FINAL DESIGN REVIEW**

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 12/14/2017	DESIGNER/DRAFTER: <b>CL/KH</b> CHECKED BY: <b>DM</b> SCALE IN FEET  SCALE 1"=20' Filename: ...FD_ENV_302-0014-EN001.dgn	SIGNATURE/ BLOCK:  <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	PROJECT TITLE: <b>MERRITT 7</b> <b>RAILROAD STATION</b> <b>IMPROVEMENTS</b>	TOWN: <b>NORWALK</b>	PROJECT NO. <b>302-0014</b> DRAWING NO. <b>ENV-002</b> SHEET NO.
							DRAWING TITLE: <b>SOIL BORING</b> <b>LOCATION PLAN</b>		




MATCH MARK - SEE DRAWING NO. GRD-002

MATCH MARK - SEE DRAWING NO. GRD-004

**NOTE**  
1. SEE DWG. NO. GRD-006 FOR ADDITIONAL GRADING INFORMATION AND SPOT ELEVATIONS IN AREAS OF PLATFORM STAIRS AND RAMP.

**FINAL DESIGN REVIEW**

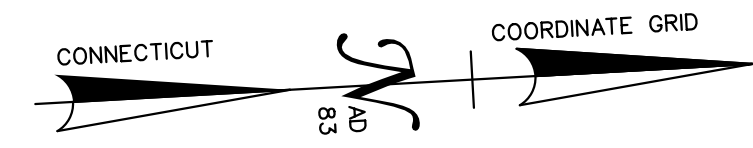
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 12/14/2017	DESIGNER/DRAFTER: <b>CL/KH</b>	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	SIGNATURE/ BLOCK:	PROJECT TITLE: <b>MERRITT 7 RAILROAD STATION IMPROVEMENTS</b>	TOWN: <b>NORWALK</b>	PROJECT NO. <b>302-0014</b>
				CHECKED BY: <b>DM</b>					DRAWING NO. <b>ENV-003</b>
				SCALE IN FEET 0 20 40 SCALE 1"=20'	FILENAME: ...FD_ENV_302-0014_EN001.dgn		DRAWING TITLE: <b>SOIL BORING LOCATION PLAN</b>		SHEET NO.

**NOTES:**

- SEE DWG. NO. GRD-006 FOR ADDITIONAL GRADING INFORMATION AND SPOT ELEVATIONS IN AREAS OF PLATFORM STAIRS AND ELEVATOR.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO TENNESSEE GAS' EASEMENT FOR THE 16-IN HIGH PRESSURE PIPELINE THROUGHOUT CONSTRUCTION.

N/F  
PAR OAKWOOD FAMILY  
LIMITED PARTNERSHIP  
12 OAKWOOD AVE.

EASEMENT TENNESSEE GAS  
PIPELINE COMPANY, L.L.C.



**PARKING WEST**

**PARKING NORTH**

**GLOVER AVENUE**

**BUS TURNOUT**

**PLATFORM**

**TRACK**

TYPE "C-L" CATCH BASIN  
STA. 26+58.5, 49.5' LT  
TF = 93.84  
INV. E = 90.75

8 LF 15" RCP  
S = 3.13%

57 LF 15" RCP  
S = 0.54%

TYPE "C-L" CATCH BASIN  
DOUBLE GRATE - TYPE II  
STA. 25+96.3, 49.1' LT  
TF = 91.70  
INV. N = 88.80

TYPE "C" CATCH BASIN  
STA. 26+27.6, 14.2' LT  
TF = 94.80  
INV. E = 91.25

DRAINAGE MANHOLE  
STA. 27+59.4, 24.4' LT  
TF = 95.97  
IN INV. N = 92.00  
IN INV. S = 87.90  
IN INV. W = 91.61(ex.)  
OUT INV. E = 87.80

DRAINAGE MANHOLE  
STA. 90+32.8, 7.3' RT  
TF = 98.54  
IN INV. W = 93.86  
IN INV. NW = 93.50  
OUT INV. E = 93.40

14 LF 15" RCP  
S = 1.00%

9 LF 12" RCP  
S = 1.67%

B.M. A Elev. 102.16  
CHISELED SQUARE IN EDGE OUTCROP  
NAVD 1988

46 LF 12" RCP  
S = 0.65%

SUBJECT TO A  
PIPELINE EASEMENT IN  
FAVOR OF TENNESSEE  
GAS PIPELINE  
COMPANY, L.L.C.

TYPE "C" CATCH BASIN  
STA. 90+57.8, 61.8' LT  
TF = 98.4  
OUT INV. E = 95.00

26 LF 12" RCP  
S = 1.35%

DRAINAGE MANHOLE  
STA. 26+56.0, 37.0' LT  
TF = 94.53  
IN INV. W = 90.50  
IN INV. S = 88.50  
OUT INV. N = 88.40

4 LF 15" RCP  
S = 2.50%

RESET MANHOLE  
STA. 27+59.4, 15.9' LT  
IN INV. W = 87.70

DRAINAGE MANHOLE  
STA. 27+59.0, 30.2' RT  
TF = 96.40  
IN INV. S = 92.64(ex)  
IN INV. E = 93.21  
OUT INV. N = 92.44

46 LF 15" RCP  
S = 0.54%

TYPE "C" CATCH BASIN  
STA. 90+33.0, 46.2' LT  
TF = 97.54  
IN INV. W = 94.65  
OUT INV. N = 94.40

TYPE "C" CATCH BASIN  
STA. 28+50.1, 14.2' LT  
TF = 96.45  
INV. E = 93.00

24 LF 15" RCP  
S = 3.13%

12 LF 15" RCP  
S = 0.83%

TYPE "C-L" CATCH BASIN  
STA. 90+93.4, 1.2' RT  
TF = 99.60  
INV. E = 95.60

36 LF 12" RCP  
S = 0.58%

TYPE "C" CATCH BASIN  
STA. 90+52.5, 1.2' LT  
TF = 98.90  
IN INV. W = 95.39  
IN INV. S = 94.10  
OUT INV. N = 94.10

4 LF 15" RCP  
S = 2.50%

DRAINAGE MANHOLE  
STA. 90+51.2, 7.3' RT  
TF = 99.16  
IN INV. S = 94.00  
OUT INV. NW = 94.00  
OUT INV. E = 94.00

9 LF 12" RCP  
S = 1.11%

HYDRODYNAMIC  
SEPARATOR  
STA. 90+41.7, 16.5' RT  
TF = 99.60  
IN INV. SW = 93.90  
OUT INV. SE = 93.65

TYPE "C" CATCH BASIN  
STA. 30+38.0, 14.2' LT  
TF = 98.85  
IN INV. N = 95.25  
OUT INV. E = 95.00

65 LF 15" RCP  
S = 0.77%

29 LF 15" RCP  
S = 1.72%

TYPE "C" CATCH BASIN  
STA. 28+10.1, 26.4' LT  
TF = 95.31  
INV. S = 92.25

10 LF 12" RCP  
S = 2.50%

TYPE "C" CATCH BASIN  
STA. 28+42.0, 41.4' RT  
TF = 96.81  
IN INV. N = 91.00  
OUT INV. W = 93.50

46 LF 12" RCP  
S = 1.09%

TYPE "C" CATCH BASIN  
STA. 29+57.3, 33.3' RT  
TF = 98.27  
IN INV. W = 92.60  
IN INV. S = 90.25  
OUT INV. N = 90.25

25 LF 24" RCP  
S = 0.50%

DRAINAGE MANHOLE  
STA. 29+86.1, 40.5' RT  
TF = 97.94  
IN INV. S = 90.10  
OUT INV. N = 90.10

48 LF 24" RCP  
S = 0.50%

TYPE "C-L" CATCH BASIN  
STA. 29+86.1, 40.5' RT  
TF = 97.94  
IN INV. S = 90.10  
OUT INV. N = 90.10

**LEGEND**

SB-09 ● SOIL BORING LOCATION

MATCH MARK - SEE DRAWING NO. GRD-003

MATCH MARK - SEE DRAWING NO. GRD-005

184 LF 24" RCP  
S = 0.54%

36 LF 15" RCP  
S = 2.78%

TYPE "C" CATCH BASIN  
DOUBLE GRATE - TYPE II  
STA. 26+27.6, 26.2' RT  
TF = 94.55  
IN INV. W = 90.25  
IN INV. N = 89.25  
IN INV. E = 91.11  
IN INV. S = 91.61 (6" PVC)  
OUT INV. S = 89.00

69 LF 6" PVC, S = 1.00%

6 LF 6" HDPE UNDERDRAIN

LAWN DRAIN 2' DIA.  
STA. 26+33.5, 44.8' RT  
TF = 95.50

IN INV. S = 92.24 (6" HDPE UNDERDRAIN)  
IN INV. N = 92.24 (6" HDPE UNDERDRAIN)  
OUT INV. W = 91.28

37 LF 6" PVC  
S = 1.00%

17 LF 12" RCP  
S = 1.00%

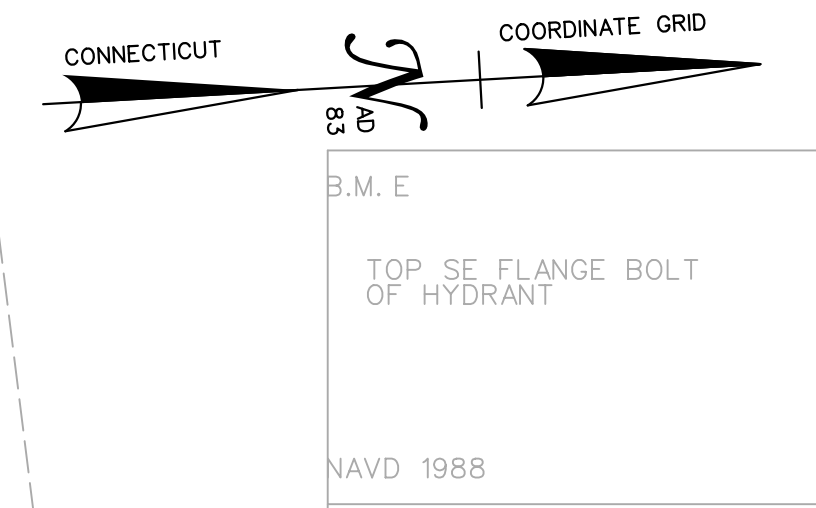
DRAINAGE MANHOLE  
STA. 28+41.9, 27.2' RT  
TF = 97.22  
IN INV. E = 93.25  
IN INV. W = 91.90  
OUT INV. S = 91.75

208 LF 15" RCP  
S = 1.20%

SUBSURFACE INFILTRATION SYSTEM  
SEE MISCELLANEOUS DETAIL SHEET  
FOR ADDITIONAL INFO

**FINAL DESIGN REVIEW**

<p>DESIGNER/DRAFTER: <b>CL/KH</b></p> <p>CHECKED BY: <b>DM</b></p> <p>SCALE IN FEET 0 20 40 SCALE 1"=20'</p>		<p><b>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</b></p>		<p>SIGNATURE/ BLOCK:</p>		<p>PROJECT TITLE: <b>MERRITT 7 RAILROAD STATION IMPROVEMENTS</b></p>		<p>TOWN: <b>NORWALK</b></p>		<p>PROJECT NO. <b>302-0014</b></p>	
<p>REV. DATE REVISION DESCRIPTION SHEET NO.</p>		<p>Plotted Date: 12/15/2017</p>		<p>Filename: ...FD_ENV_302-0014-EN001.dgn</p>		<p>DRAWING TITLE: <b>SOIL BORING LOCATION PLAN</b></p>		<p>DRAWING NO. <b>ENV-004</b></p>		<p>SHEET NO.</p>	



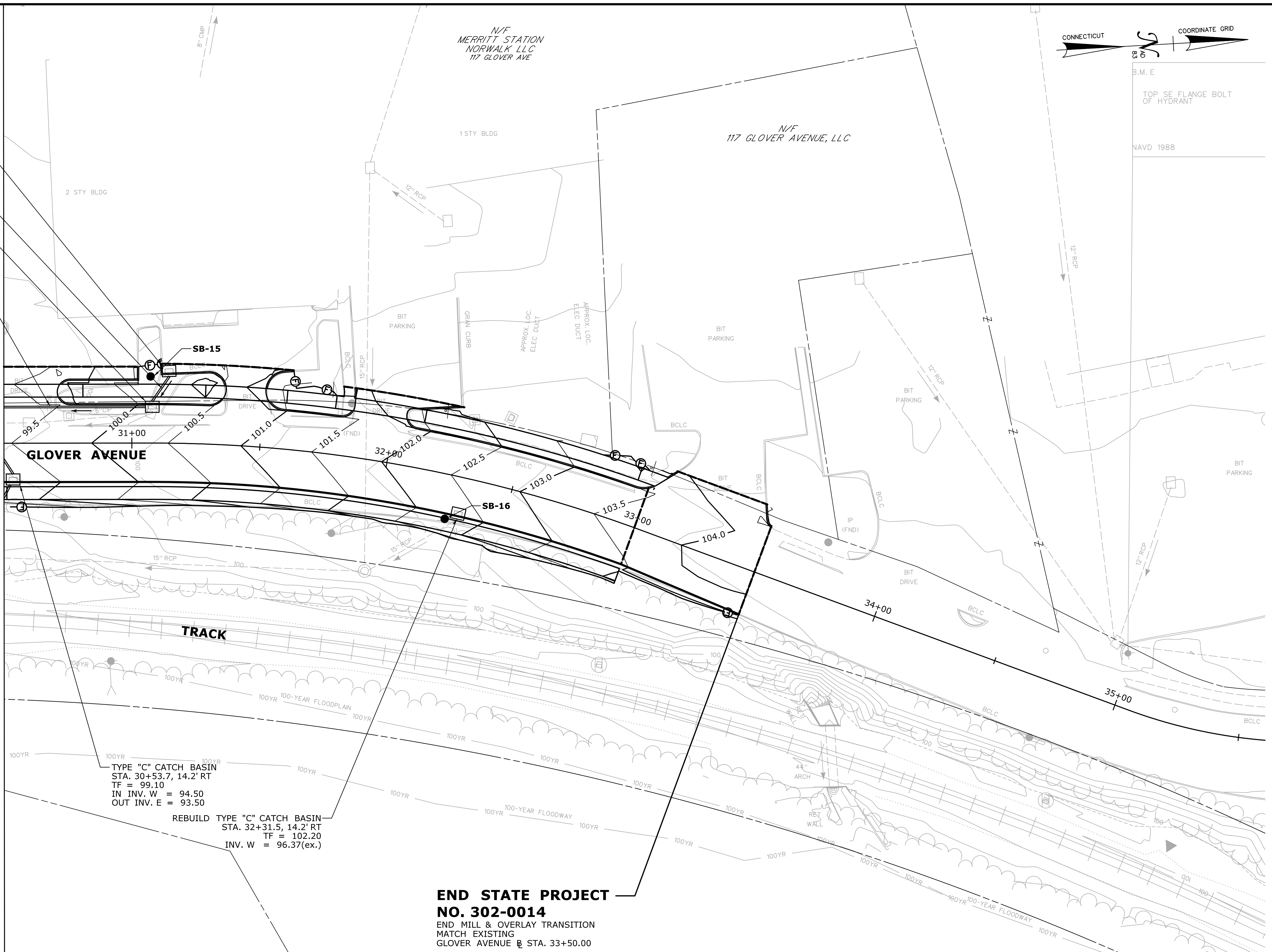
TYPE "C" CATCH BASIN  
 STA. 31+14.2, 28.2' LT  
 TF = 100.50  
 OUT INV. E = 96.25

12 LF 15" RCP  
 S = 2.08%

TYPE "C" CATCH BASIN  
 STA. 31+08.0, 14.2' LT  
 TF = 99.95  
 IN INV. W = 96.00  
 OUT INV. S = 95.75

65 LF 15" RCP  
 S = 0.77%

MATCH MARK - SEE DRAWING NO. GRD-004



TYPE "C" CATCH BASIN  
 STA. 30+53.7, 14.2' RT  
 TF = 99.10  
 IN INV. W = 94.50  
 OUT INV. E = 93.50

REBUILD TYPE "C" CATCH BASIN  
 STA. 32+31.5, 14.2' RT  
 TF = 102.20  
 INV. W = 96.37(ex.)

**END STATE PROJECT  
 NO. 302-0014**  
 END MILL & OVERLAY TRANSITION  
 MATCH EXISTING  
 GLOVER AVENUE @ STA. 33+50.00

**LEGEND**  
 SB-15 ● SOIL BORING LOCATION

**FINAL DESIGN REVIEW**

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

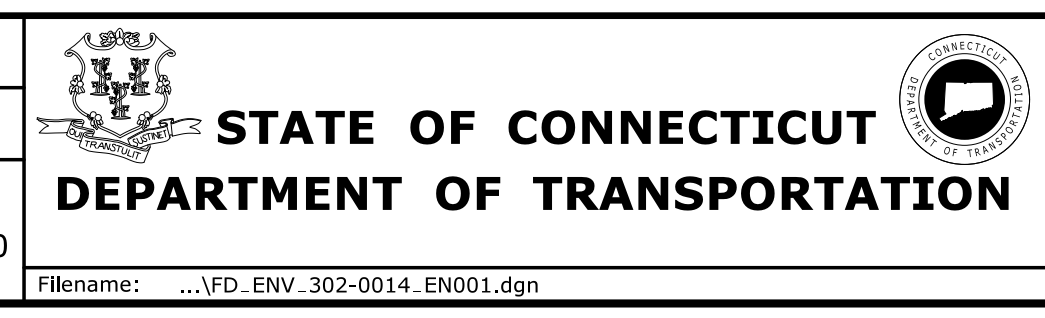
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 12/15/2017

DESIGNER/DRAFTER:  
**CL/KH**

CHECKED BY:  
**DM**

SCALE IN FEET  
 0 20 40  
 SCALE 1"=20'



SIGNATURE/  
 BLOCK:

PROJECT TITLE:  
**MERRITT 7  
 RAILROAD STATION  
 IMPROVEMENTS**

TOWN:  
**NORWALK**

DRAWING TITLE:  
**SOIL BORING  
 LOCATION PLAN**

PROJECT NO.  
**302-0014**

DRAWING NO.  
**ENV-005**

SHEET NO.



## **TABLES**

**Table 1**  
**Soil Sample Analytical Results**  
**Task 210 Subsurface Investigation**  
**Merritt 7 Train Station, Norwalk, Connecticut**  
**TRC Project No. 237612.005411.000210**  
**ConnDOT Project No. 302-0014**

Boring No. Sample Interval (ftbg): Sample Date: Notes:	SB-01	SB-02	SB-03	SB-04	SB-04A	SB-05	SB-06	SB-07	SB-08	SB-09	CT RSRs	
	1-3 10/27/2017	2-4 10/27/2017	5-7 10/27/2017	2-4 10/27/2017	2-4 10/27/2017 Duplicate of SB-04	4-6 10/27/2017	2-4 10/27/2017	2-4 10/27/2017	3-5 10/27/2017	3-5 10/27/2017	RES DEC	GA PMC
<b>Volatiles Organic Compounds - µg/kg</b> <b>Method 8260</b> Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000,000	5,600
<b>Semivolatiles Organic Compounds - µg/kg</b> <b>Method 8270</b> 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene	ND	ND	ND			ND		ND	ND	ND	NE NE 1,000,000 1,000,000	NE NE 8,400 40,000
Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(ghi)perylene				870 <b>1,100</b> <b>1,100</b> 720	930 <b>1,200</b> <b>1,200</b> 890		280				1,000 1,000 1,000 NE	1,000 1,000 1,000 NE
Benzo(k)fluoranthene Carbazole Chrysene Dibenz(a,h)anthracene				1,100 1,100	1,200 1,200		290				8,400 NE NE NE	1,000 NE NE NE
Dibenzofuran Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene				1,200 710	1,300 940		340				NE 1,000,000 1,000,000 NE	NE 5,600 5,600 NE
Naphthalene Phenanthrene Pyrene				340 1,200	410 1,300		330				1,000,000 1,000,000 1,000,000	5,600 4,000 4,000
<b>Extractable Total Petroleum Hydrocarbons - mg/kg</b> <b>CT Method</b>	79	ND	ND	100	120	ND	ND	ND	ND	ND	500	500
<b>PCBs - mg/kg</b> <b>Method 8082</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	--
<b>RCRA 8 Metals - mg/kg</b> <b>Methods 6010/7471</b> Arsenic Barium Cadmium	5.4 79.2 0.49	2.28 92.6	3.4 117	3.78 78.3 0.36	5.38 73.8	3.03 96.2	<b>37.2</b> 93	4.68 78	5.55 82.1	8.1 90.5	10 4,700 34	-- -- --
Chromium Lead Mercury	23.1 12.5 0.05	27.7 3.41	32.4 8.92	24 45.1 0.05	26.3 43.2 0.07	31 5.09	24.4 21	23.4 2.96	23.5 3.73	25.7 3.91	100 400 20	-- -- --
<b>SPLP RCRA 8 Metals - mg/L</b> <b>Methods 6010/7471</b> SPLP Arsenic SPLP Barium SPLP Chromium SPLP Lead	0.013 0.038 0.012 <b>0.022</b>	0.043	0.019	0.041	0.035	ND	0.153 0.066 0.035	ND	ND	ND	-- -- -- --	0.05 1 0.05 0.015

NOTES:  
CT RSRs - State of Connecticut Remediation Standard Regulations (CT RSRs) per RCSA 22a-133k-1 through 22a-133k-3, adopted January 1, 1996 and revised on June 27, 2013.  
RES DEC - Residential Direct Exposure Criteria  
GA PMC - GA Pollutant Mobility Criteria  
ftbg - feet below grade  
ND - Not detected above laboratory detection limits (all checked to be in compliance with established RSR criteria)  
NA - Not Analyzed  
NE - Not Established  
**BOLD** value indicates an exceedance of the Residential Direct Exposure Criteria (RES DEC)  
Shaded value indicates an exceedance of the GA Pollutant Mobility Criteria (GA PMC)  
\* - Currently, no RES DEC or I/C DEC for total chromium is established in the CT RSRs. However, the CT RSRs provide an RES DEC value for both hexavalent and trivalent chromium, of which the value for hexavalent chromium (the more stringent of the two) is presented on this table for comparison.

**Table 1**  
**Soil Sample Analytical Results**  
**Task 210 Subsurface Investigation**  
**Merritt 7 Train Station, Norwalk, Connecticut**  
**TRC Project No. 237612.005411.000210**  
**ConnDOT Project No. 302-0014**

Boring No. Sample Interval (ftbg): Sample Date: Notes:	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	EB102717	SB102717	CT RSRs	
	3-5 10/27/2017	1-3 10/27/2017	1-3 10/27/2017	2-4 10/27/2017	0.5-2.5 10/27/2017	2-4 10/27/2017	3-5 10/27/2017	1-3 11/28/2017	10/27/2017 Equipment Blank	10/27/2017 Solvent Blank	RES DEC	GA PMC
<b>Volatiles Organic Compounds - µg/kg</b> <b>Method 8260</b>												
Naphthalene	ND	4,900	ND	ND	ND	ND	ND	ND	ND	ND	1,000,000	5,600
<b>Semivolatiles Organic Compounds - µg/kg</b> <b>Method 8270</b>												
2-Methylnaphthalene	ND	490		ND	ND	ND		ND		NA	NE	NE
Acenaphthene		710									NE	NE
Acenaphthylene		500									1,000,000	8,400
Anthracene		1,400									1,000,000	40,000
Benz(a)anthracene		<b>3,100</b>	<b>1,200</b>				460		0.05		1,000	1,000
Benzo(a)pyrene		<b>2,400</b>	<b>1,400</b>				580				1,000	1,000
Benzo(b)fluoranthene		<b>2,400</b>	<b>1,300</b>				520				1,000	1,000
Benzo(ghi)perylene		1,500	910				510				NE	NE
Benzo(k)fluoranthene		<b>2,100</b>	<b>1,200</b>				500				8,400	1,000
Carbazole		890									NE	NE
Chrysene		3,400	1,500				580				NE	NE
Dibenz(a,h)anthracene		380									NE	NE
Dibenzofuran		570									NE	NE
Fluoranthene		<b>7,700</b>	2,000				770				1,000,000	5,600
Fluorene		1,000									1,000,000	5,600
Indeno(1,2,3-cd)pyrene		1,500	930				490				NE	NE
Naphthalene		660									1,000,000	5,600
Phenanthrene		<b>7,200</b>	500				300				1,000,000	4,000
Pyrene		<b>6,200</b>	2,000				770				1,000,000	4,000
<b>Extractable Total Petroleum Hydrocarbons - mg/kg</b> <b>CT Method</b>	ND	210	170	ND	ND	ND	110	ND	ND	NA	500	500
<b>PCBs - mg/kg</b> <b>Method 8082</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	1,000	--
<b>RCRA 8 Metals - mg/kg</b> <b>Methods 6010/7471</b>									ND	NA		
Arsenic	4.41	5.11	3.19	2.76	3.12	4.51	3.09	2.76			10	--
Barium	108	89.7	80.8	61.8	112	136	70.1	117			4,700	--
Cadmium					0.42						34	--
Chromium	31.6	35.8	27.9	16.7	37.8	31.5	25.3	29.1			100	--
Lead	5.81	4.11	7.86	3.44	5.75	7.91	9.6	3.41			400	--
Mercury			0.03			0.04					20	--
<b>SPLP RCRA 8 Metals - mg/L</b> <b>Methods 6010/7471</b>									NA	NA		
SPLP Arsenic	ND		ND		ND	ND		ND			--	0.05
SPLP Barium		0.013		0.011			0.024				--	1
SPLP Chromium		<b>0.098</b>									--	0.05
SPLP Lead											--	0.015

NOTES:  
CT RSRs - State of Connecticut Remediation Standard Regulations (CT RSRs) per RCSA 22a-133k-1 through 22a-133k-3, adopted January 1, 1996 and revised on June 27, 2013.  
RES DEC - Residential Direct Exposure Criteria  
GA PMC - GA Pollutant Mobility Criteria  
ftbg - feet below grade  
ND - Not detected above laboratory detection limits (all checked to be in compliance with established RSR criteria)  
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\* - Currently, no RES DEC or I/C DEC for total chromium is established in the CT RSRs. However, the CT RSRs provide an RES DEC value for both hexavalent and trivalent chromium, of which the value for hexavalent chromium (the more stringent of the two) is presented on this table for comparison.

**APPENDIX A**  
**SOIL BORING LOGS**



PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>6</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing) <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
							20 40 60 80
	MAC-1		5.0	2.6		0'- 2.8' Brown and light gray fine to medium SAND, some rock fragments. Dry, no odor, and no staining.	
5	MAC-2		1.0	1.0		5'- 6' Brown and light gray fine to medium SAND, some rock fragments. Dry, no odor, and no staining.	

Bottom of borehole at 6.0 feet.

**Notes:** Collected sample SB-01 from 1' to 3' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>9</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'- 0.4' ASPHALT	
						0.4'- 1.5' Black pulverized ROCK, little fine sand. Dry, no odor, and no staining.	
	MAC-1		5.0	2.8		1.5'- 2.7' Brown and gray fine SAND and SILT, little granitic rock fragments. Dry, no odor, and no staining.	
5						5'- 7.5' Brown fine SAND and SILT. Moist, no odor, and no staining.	
	MAC-2		4.0	2.5			
						Bottom of borehole at 9.0 feet.	
10							

**Notes:** Collected sample SB-02 from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>9</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'- 0.2' TOPSOIL	
	MAC-1		5.0	2.8		0.2'- 2.7' Light brown and white fine to medium SAND, little coarse rock fragments. Dry, no odor, and no staining.	
5							
	MAC-2		4.0	4.0		5'- 9' Light brown and white fine to medium SAND, little coarse rock fragments. Dry, no odor, and no staining.	
10						Refusal at 9.0 feet. Bottom of borehole at 9.0 feet.	

**Notes:** Collected sample SB-03 from 5' to 7' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 1.7' Gray fine SAND, some granitic rock fragments. Dry, no odor, and no staining.	20 40 60 80
	MAC-1		5.0	3.8		1.7'- 3.8' Brown and black SILT, little clay, trace rock fragments. Moist, no odor, and no staining.	
5						5'- 5.2' Brown and black SILT, little clay, trace rock fragments. Moist, no odor, and no staining.	
	MAC-2		2.0	2.0		5.2'- 7' Brown and gray fine SAND, trace rock fragments. Dry, no odor, and no staining.	
Bottom of borehole at 7.0 feet.							

**Notes:** Collected sample SB-04 and duplicate from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>10</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'- 1.1' ASPHALT	
						1.1'- 2.1' Brown and gray fine to coarse SAND, trace gravel. Dry, no odor, and no staining.	
	MAC-1		5.0	3.3		2.1'- 3.2' Brown CLAY, trace granitic rock fragments. Dry, no odor, and no staining.	
5						5'- 5.2' Brown CLAY, trace granitic rock fragments. Dry, no odor, and no staining. 5.2'- 8.8' Brown and light gray fine to medium SAND, trace rock fragments. Dry, no odor, and no staining except for 1" of black staining @ 5.8'.	
	MAC-2		5.0	3.8			
10						Bottom of borehole at 10.0 feet.	

**Notes:** Collected sample SB-05 from 4' to 6' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing) <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.6' ASPHALT	20 40 60 80
						0.6'- 2.2' Dark brown fine SAND and SILT, trace clay, trace granitic rock fragments. Wet, no odor, and no staining.	
	MAC-1		5.0	2.1			
5						5'- 5.8' Dark brown fine SAND and SILT, trace clay, trace granitic rock fragments. Wet, no odor, and no staining.	
	MAC-2		2.0	1.9		5.8'- 6.9' Light gray fine SAND, some granitic rock fragments. Dry, no odor, and no staining.	

Bottom of borehole at 7.0 feet.

**Notes:** Collected sample SB-06 from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7.8</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing) <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
					0'- 1' CONCRETE		
	MAC-1		5.0	3.5		1'- 3.5' Dark brown and dark gray fine to medium SAND, little coarse granitic rock fragments, trace asphalt. Moist, no odor, and no staining.	
5	MAC-2		3.0	2.8		5'- 7.8' Brown and light gray fine to coarse SAND, little granitic rock fragments, trace silt. dry, no odor, and no staining.	

Bottom of borehole at 7.8 feet.

**Notes:** Collected sample SB-07 from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>10</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'- 0.7' CONCRETE	20 40 60 80
	MAC-1		5.0	2.5		0.7'- 2.5' Brown and light gray coarse granitic ROCK fragments, some fine to coarse sand, trace clay. Moist, no odor, and no staining.	
5	MAC-2		5.0	4.0		5'- 9' Brown and light gray fine to medium SAND and fine granitic ROCK fragments. Moist, no odor, and no staining.	
10						Bottom of borehole at 10.0 feet.	

**Notes:** Collected sample SB-08 from 3' to 5' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>6</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing) <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
							20 40 60 80
	MAC-1		5.0	3.0		0'- 3' Brown and light gray fine to coarse SAND and fine-coarse granitic ROCK fragments. Dry except from 2.8'-3' moist. No odor, no staining.	
5	MAC-2		1.0	1.0		5'- 6' Brown and light gray fine to coarse SAND and fine-coarse granitic ROCK fragments. Dry, no odor, and no staining.	

Bottom of borehole at 6.0 feet.

**Notes:** Collected sample SB-09 from 3' to 5' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 4/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>9</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.5' ASPHALT	20 40 60 80
						0.5'- 2.5' Dark Brown and brown CLAY and SILT, some granitic rock fragments. Moist, no odor, and no staining.	
	MAC-1		5.0	3.7		2.5'- 3.8' Gray and brown fine to medium SAND, some granitic rock fragments. Dry, no odor, and no staining.	
5						5'- 5.3' Dark brown CLAY and SAND. Moist, no odor, and no staining.	
	MAC-2		4.0	3.5		5.3'- 8.5' White and light brown fine SAND, some rock fragments. Dry, no odor, and no staining.	
						Refusal at 9.0 feet. Bottom of borehole at 9.0 feet.	
10							

**Notes:** Collected sample SB-10 from 3' to 5' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	<input type="checkbox"/> At Time of Drilling	<input type="checkbox"/> At End of Drilling	<input type="checkbox"/> After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'- 0.8' Concrete	
						0.8'- 2.8' Brown and light gray SILT, some fine to coarse sand and granitic rock fragments. Moist, no odor, and no staining except for 1" of black staining @1.2'.	
	MAC-1		5.0	3.0		2.8'- 3' Fine to coarse granitic ROCK fragments. Dry, no staining, and no odor.	
5						5'- 7' Brown and light gray fine to coarse SAND and fine-coarse granitic ROCK fragments, trace silt. Dry, no odor, and no staining.	
	MAC-2		2.0	2.0			
Refusal at 7.0 feet. Bottom of borehole at 7.0 feet.							

**Notes:** Collected sample SB-11 from 1' to 3' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.5' ASPHALT	
						0.5'- 1.4' Dark brown fine SAND and SILT, some rock fragments. Moist, no odor, and no staining.	
						1.4'- 1.5' Gray coarse rock fragments. Dry, no odor, and no staining.	
						1.5'- 2.9' Dark brown and brown SILT and CLAY, trace rock fragments. Moist, no odor, no staining.	
	MAC-1		5.0	2.7			
5							
	MAC-2		2.0	2.0			
						5'- 7' Brown and gray fine to medium SAND, some rock fragments, trace silt. Moist, no odor, and no staining.	

Refusal at 7.0 feet.  
Bottom of borehole at 7.0 feet.

**Notes:** Collected sample SB-12 from 1' to 3' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>8</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.6' ASHPALT	20 40 60 80
						0.6'- 2.4' Brown and light gray fine SAND and SILT, some rock fragments. Moist, no odor, and no staining.	
	MAC-1		5.0	2.4			
5						5'- 6.9' Brown and light gray fine SAND and SILT, some rock fragments. Moist, no odor, and no staining.	
	MAC-2		3.0	1.9			
						Bottom of borehole at 8.0 feet.	
10							

**Notes:** Collected sample SB-13 from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>4</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
							20 40 60 80
	MAC		4.0	3.0		0'- 3' Brown and light gray SILT and fine to coarse SAND, some granitic rock fragments. Moist, no odor, and no staining.	

Refusal at 4.0 feet.  
Bottom of borehole at 4.0 feet.

**Notes:** Collected sample SB-14 from 0.5' to 2.5' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>8</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	<input type="checkbox"/> At Time of Drilling	<input type="checkbox"/> At End of Drilling	<input type="checkbox"/> After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						0'-0.1' ASPHALT	
						0.1'-3' Dark brown and gray SILT and SAND, some granitic rock fragments. Dry, no odor, and no staining.	
	MAC-1		5.0	3.0			
5						5'-7.3' White and light gray fine-medium SAND, some rock fragments. Dry, no odor, and no staining.	
	MAC-2		3.0	2.3			
						Bottom of borehole at 8.0 feet.	
10							

**Notes:** Collected sample SB-15 from 2' to 4' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>8</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>10/27/17</b>	Date Completed: <b>10/27/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	∇ At Time of Drilling	∇ At End of Drilling	∇ After Drilling
Driller(s): <b>Lavelle and Sam</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>6610DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.6' TOPSOIL	20 40 60 80
	MAC-1		5.0	3.0		0.6'- 3' Brown and gray fine to medium SAND, some granitic rock fragments. Dry, no odor, and no staining.	
5	MAC-2		3.0	2.0		5'- 7' Brown and gray fine to medium SAND, some granitic rock fragments. Dry, no odor, and no staining.	
						Bottom of borehole at 8.0 feet.	
10							

**Notes:** Collected sample SB-16 from 3' to 5' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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PROJECT INFORMATION		BORING INFORMATION	
Project Name: <b>Merritt 7 Train Station</b>	Boring Depth (ft): <b>7</b>	Hole Diameter (in): <b>2</b>	
Project Location: <b>Glover Avenue, Norwalk, CT</b>	Date Started: <b>11/28/17</b>	Date Completed: <b>11/28/17</b>	
Project Number: <b>237612.5411.210</b>	Coordinate System:	North: <b>Not Surveyed</b>	East: <b>Not Surveyed</b>
Client: <b>ConnDOT</b>	Vertical Datum:	Ground Elevation: <b>Not Surveyed</b>	
TRC Eng./Geol: <b>Vera Signorelli</b>	Well Elevation (Top of Casing): <b>Not Surveyed</b>		
Checked By: <b>Chris Lindahl</b>			

DRILLING INFORMATION		GROUND WATER OBSERVATIONS		
Drilling Contractor: <b>Glacier Drilling LLC</b>	MEASUREMENT	<input type="checkbox"/> At Time of Drilling	<input type="checkbox"/> At End of Drilling	<input type="checkbox"/> After Drilling
Driller(s): <b>Lavelle and Matt</b>	DATE			
Drilling Method: <b>Direct-Push</b>	DEPTH (ft.bgs.)			
Equipment/Model: <b>7822DT</b>	REFERENCE			
Sampler: <b>5' Macrocore</b>	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆ VOC SCREENING RESULTS (ppm)
						0'- 0.5' ASPHALT	
						0.5'- 1.5' Gray and brown medium SAND, some silt. Dry, no odor, and no staining.	
						1.5'- 3' White and gray fine SAND, little rock fragment. Dry, no odor, and no staining.	
	MAC-1		5.0	3.0			
5							
	MAC-2		2.0	2.0			
						5'- 7' White and gray fine SAND, little rock fragment. Dry, no odor, and no staining.	

Refusal at 7.0 feet.  
Bottom of borehole at 7.0 feet.

**Notes:** Collected sample SB-17 from 1' to 3' ftbg for VOCs, SVOCs, ETPH, PCB's, total and RCRA 8 metals. 6 offsets attempted around this location. Refusals encountered between 5' to 7' ftbg in each of them.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 1/10/18  
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**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**



Monday, December 04, 2017

Attn: Chris Lindahl  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Project ID: CONN DOT MERRITT 7 TRAIN STATION  
Sample ID#s: BZ46985

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

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

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

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

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

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis/Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
VT Lab Registration #VT11301



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

**Analysis Report**  
 December 04, 2017

FOR: Attn: Chris Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/28/17  
 11/28/17

Time

9:30  
 12:06

Laboratory Data

SDG ID: GBZ46985  
 Phoenix ID: BZ46985

Project ID: CONN DOT MERRITT 7 TRAIN STATION  
 Client ID: SB-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/29/17	MA	SW6010C
Arsenic	2.76	0.71	mg/Kg	1	11/29/17	MA	SW6010C
Barium	117	0.35	mg/Kg	1	11/29/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	11/29/17	MA	SW6010C
Chromium	29.1	0.35	mg/Kg	1	11/29/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/29/17	RS	SW7471B
Lead	3.41	0.35	mg/Kg	1	11/29/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/29/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	11/29/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	11/29/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	11/29/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/29/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	11/29/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/29/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	11/29/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	11/29/17	MA	SW6010C
SPLP Metals Digestion	Completed				11/29/17	QW/W	SW3005A
Percent Solid	97		%		11/28/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				11/28/17	BA/V	SW3545A
Soil Extraction for SVOA	Completed				11/28/17	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				11/28/17	BA/VCK	SW3545A
Mercury Digestion	Completed				11/29/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				11/29/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/28/17	W	SW1312
Total Metals Digest	Completed				11/28/17	X/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 51 mg/Kg 1 11/29/17 JRB CTETPH 8015D



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/29/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	77		%	1	11/29/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1221	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1232	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1242	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1248	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1254	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1260	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1262	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
PCB-1268	ND	0.34	mg/Kg	10	11/29/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	115		%	10	11/29/17	AW	30 - 150 %
% TCMX	103		%	10	11/29/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0038	mg/Kg	1	11/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.005	mg/Kg	1	11/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
2-Chlorotoluene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
2-Hexanone	ND	0.032	mg/Kg	1	11/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
4-Chlorotoluene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.032	mg/Kg	1	11/28/17	JLI	SW8260C
Acetone	ND	0.32	mg/Kg	1	11/28/17	JLI	SW8260C
Acrylonitrile	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Benzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Bromobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Bromochloromethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Bromoform	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Bromomethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Carbon Disulfide	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Carbon tetrachloride	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Chlorobenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Chloroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Chloroform	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Chloromethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Dibromochloromethane	ND	0.0038	mg/Kg	1	11/28/17	JLI	SW8260C
Dibromomethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Ethylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Isopropylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
m&p-Xylene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.038	mg/Kg	1	11/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.013	mg/Kg	1	11/28/17	JLI	SW8260C
Methylene chloride	ND	0.013	mg/Kg	1	11/28/17	JLI	SW8260C
Naphthalene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
n-Butylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
n-Propylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
o-Xylene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
sec-Butylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Styrene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
tert-Butylbenzene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Tetrachloroethene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.013	mg/Kg	1	11/28/17	JLI	SW8260C
Toluene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Total Xylenes	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.013	mg/Kg	1	11/28/17	JLI	SW8260C
Trichloroethene	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
Vinyl chloride	ND	0.0063	mg/Kg	1	11/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/28/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	11/28/17	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	11/28/17	JLI	70 - 130 %
% Toluene-d8	98		%	1	11/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	0.1	mg/Kg	1	11/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.3	mg/Kg	1	11/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
2-Chloronaphthalene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2-Chlorophenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2-Methylnaphthalene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
2-Nitroaniline	ND	0.3	mg/Kg	1	11/28/17	DD	SW8270D
2-Nitrophenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	0.34	mg/Kg	1	11/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
3-Nitroaniline	ND	0.3	mg/Kg	1	11/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.3	mg/Kg	1	11/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	0.34	mg/Kg	1	11/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
4-Chloroaniline	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
4-Nitroaniline	ND	0.3	mg/Kg	1	11/28/17	DD	SW8270D
4-Nitrophenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Acetophenone	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Aniline	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Anthracene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benzidine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Benzoic acid	ND	0.68	mg/Kg	1	11/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg	1	11/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Carbazole	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Chrysene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Dibenzofuran	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Diethyl phthalate	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Dimethylphthalate	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	0.68	mg/Kg	1	11/28/17	DD	SW8270D
Di-n-octylphthalate	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Fluorene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Hexachlorobenzene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Hexachlorobutadiene	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Hexachloroethane	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Isophorone	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Nitrobenzene	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	0.14	mg/Kg	1	11/28/17	DD	SW8270D
Pentachlorophenol	ND	0.34	mg/Kg	1	11/28/17	DD	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Phenol	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Pyrene	ND	0.24	mg/Kg	1	11/28/17	DD	SW8270D
Pyridine	ND	0.2	mg/Kg	1	11/28/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	67		%	1	11/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	11/28/17	DD	30 - 130 %
% 2-Fluorophenol	45		%	1	11/28/17	DD	30 - 130 %
% Nitrobenzene-d5	61		%	1	11/28/17	DD	30 - 130 %
% Phenol-d5	54		%	1	11/28/17	DD	30 - 130 %
% Terphenyl-d14	63		%	1	11/28/17	DD	30 - 130 %
Field Extraction	Completed				11/28/17		SW5035A

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

**Comments:**

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

**Volatile Comment:**

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

**Semi-Volatile Comment:**

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

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

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

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**Phyllis Shiller, Laboratory Director**

**December 04, 2017**

**Reviewed and Released by: Ethan Lee, Project Manager**



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# QA/QC Report

December 04, 2017

## QA/QC Data

SDG I.D.: GBZ46985

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 411115 (mg/L), QC Sample No: BZ45338 (BZ46985)													
<u>ICP Metals - SPLP Extraction</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	107			107			75 - 125	20
Barium	BRL	0.010	0.020	0.019	NC	107			103			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	107			104			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	105			105			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	105			104			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	108			106			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	99.6			101			75 - 125	20
QA/QC Batch 410950 (mg/kg), QC Sample No: BZ46875 (BZ46985)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.66	1.69	1.74	NC	93.5			80.9			75 - 125	30
Barium	BRL	0.33	67.4 *	42.4	45.5	89.6			94.4			75 - 125	30
Cadmium	BRL	0.33	1.10	0.70	NC	100			90.2			75 - 125	30
Chromium	BRL	0.33	16.4	17.8	8.20	102			93.1			75 - 125	30
Lead	BRL	0.33	9.8	8.06	19.5	107			92.6			75 - 125	30
Selenium	BRL	1.3	<1.4	<1.4	NC	87.6			89.6			75 - 125	30
Silver	BRL	0.33	<0.36	<0.34	NC	93.8			93.9			75 - 125	30
QA/QC Batch 411112 (mg/L), QC Sample No: BZ46985 (BZ46985)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	97.5			82.2			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 411109 (mg/kg), QC Sample No: BZ47646 (BZ46985)													
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	78.4	87.7	11.2	115			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%.													

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



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# QA/QC Report

December 04, 2017

## QA/QC Data

SDG I.D.: GBZ46985

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 410944 (mg/Kg), QC Sample No: BZ46975 (BZ46985)										
<b>TPH by GC (Extractable Products) - Soil</b>										
Ext. Petroleum H.C. (C9-C36)	ND	50	91	66	31.8	80	82	2.5	60 - 120	30
% n-Pentacosane	59	%	71	65	8.8	72	74	2.7	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 411126 (mg/Kg), QC Sample No: BZ47165 (BZ46985)										
<b>Volatiles - Soil</b>										
1,1,1,2-Tetrachloroethane	ND	0.005	112	116	3.5	110	112	1.8	70 - 130	30
1,1,1-Trichloroethane	ND	0.005	112	116	3.5	115	116	0.9	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.003	104	106	1.9	102	107	4.8	70 - 130	30
1,1,2-Trichloroethane	ND	0.005	105	104	1.0	94	99	5.2	70 - 130	30
1,1-Dichloroethane	ND	0.005	110	112	1.8	110	116	5.3	70 - 130	30
1,1-Dichloroethene	ND	0.005	103	105	1.9	104	108	3.8	70 - 130	30
1,1-Dichloropropene	ND	0.005	115	118	2.6	116	121	4.2	70 - 130	30
1,2,3-Trichlorobenzene	ND	0.005	118	117	0.9	61	61	0.0	70 - 130	30
1,2,3-Trichloropropane	ND	0.005	95	95	0.0	100	106	5.8	70 - 130	30
1,2,4-Trichlorobenzene	ND	0.005	116	117	0.9	65	67	3.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	0.001	109	111	1.8	111	113	1.8	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	0.005	109	109	0.0	76	90	16.9	70 - 130	30
1,2-Dibromoethane	ND	0.005	106	108	1.9	97	102	5.0	70 - 130	30
1,2-Dichlorobenzene	ND	0.005	102	105	2.9	93	95	2.1	70 - 130	30
1,2-Dichloroethane	ND	0.005	108	112	3.6	105	109	3.7	70 - 130	30
1,2-Dichloropropane	ND	0.005	109	111	1.8	106	111	4.6	70 - 130	30
1,3,5-Trimethylbenzene	ND	0.001	110	112	1.8	115	116	0.9	70 - 130	30
1,3-Dichlorobenzene	ND	0.005	108	111	2.7	104	105	1.0	70 - 130	30
1,3-Dichloropropane	ND	0.005	102	103	1.0	97	102	5.0	70 - 130	30
1,4-Dichlorobenzene	ND	0.005	105	108	2.8	98	100	2.0	70 - 130	30
2,2-Dichloropropane	ND	0.005	123	126	2.4	115	120	4.3	70 - 130	30
2-Chlorotoluene	ND	0.005	109	113	3.6	113	118	4.3	70 - 130	30
2-Hexanone	ND	0.025	87	87	0.0	64	70	9.0	70 - 130	30
2-Isopropyltoluene	ND	0.005	98	99	1.0	100	103	3.0	70 - 130	30
4-Chlorotoluene	ND	0.005	109	113	3.6	113	113	0.0	70 - 130	30
4-Methyl-2-pentanone	ND	0.025	97	97	0.0	75	82	8.9	70 - 130	30
Acetone	ND	0.01	65	65	0.0	53	59	10.7	70 - 130	30
Acrylonitrile	ND	0.005	88	89	1.1	75	80	6.5	70 - 130	30
Benzene	ND	0.001	107	107	0.0	105	108	2.8	70 - 130	30
Bromobenzene	ND	0.005	107	109	1.9	109	110	0.9	70 - 130	30
Bromochloromethane	ND	0.005	104	103	1.0	98	101	3.0	70 - 130	30
Bromodichloromethane	ND	0.005	119	117	1.7	104	109	4.7	70 - 130	30
Bromoform	ND	0.005	118	115	2.6	85	91	6.8	70 - 130	30
Bromomethane	ND	0.005	89	91	2.2	88	91	3.4	70 - 130	30

QA/QC Data

SDG I.D.: GBZ46985

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Carbon Disulfide	ND	0.005	111	111	0.0	96	103	7.0	70 - 130	30
Carbon tetrachloride	ND	0.005	124	126	1.6	120	122	1.7	70 - 130	30
Chlorobenzene	ND	0.005	105	107	1.9	101	106	4.8	70 - 130	30
Chloroethane	ND	0.005	84	87	3.5	85	90	5.7	70 - 130	30
Chloroform	ND	0.005	102	110	7.5	103	112	8.4	70 - 130	30
Chloromethane	ND	0.005	76	79	3.9	76	76	0.0	70 - 130	30
cis-1,2-Dichloroethene	ND	0.005	107	109	1.9	106	110	3.7	70 - 130	30
cis-1,3-Dichloropropene	ND	0.005	127	128	0.8	111	114	2.7	70 - 130	30
Dibromochloromethane	ND	0.003	122	123	0.8	103	110	6.6	70 - 130	30
Dibromomethane	ND	0.005	111	109	1.8	97	104	7.0	70 - 130	30
Dichlorodifluoromethane	ND	0.005	92	91	1.1	85	89	4.6	70 - 130	30
Ethylbenzene	ND	0.001	106	110	3.7	106	110	3.7	70 - 130	30
Hexachlorobutadiene	ND	0.005	113	115	1.8	86	87	1.2	70 - 130	30
Isopropylbenzene	ND	0.001	110	113	2.7	122	127	4.0	70 - 130	30
m&p-Xylene	ND	0.002	105	109	3.7	105	110	4.7	70 - 130	30
Methyl ethyl ketone	ND	0.005	85	83	2.4	67	75	11.3	70 - 130	30 m
Methyl t-butyl ether (MTBE)	ND	0.001	88	89	1.1	81	84	3.6	70 - 130	30
Methylene chloride	ND	0.005	83	84	1.2	83	86	3.6	70 - 130	30
Naphthalene	ND	0.005	127	126	0.8	71	68	4.3	70 - 130	30 m
n-Butylbenzene	ND	0.001	117	123	5.0	112	116	3.5	70 - 130	30
n-Propylbenzene	ND	0.001	110	114	3.6	119	122	2.5	70 - 130	30
o-Xylene	ND	0.002	113	117	3.5	110	116	5.3	70 - 130	30
p-Isopropyltoluene	ND	0.001	115	119	3.4	117	119	1.7	70 - 130	30
sec-Butylbenzene	ND	0.001	116	118	1.7	121	124	2.4	70 - 130	30
Styrene	ND	0.005	111	114	2.7	103	108	4.7	70 - 130	30
tert-Butylbenzene	ND	0.001	110	114	3.6	120	122	1.7	70 - 130	30
Tetrachloroethene	ND	0.005	112	114	1.8	106	114	7.3	70 - 130	30
Tetrahydrofuran (THF)	ND	0.005	84	85	1.2	72	77	6.7	70 - 130	30
Toluene	ND	0.001	108	109	0.9	106	108	1.9	70 - 130	30
trans-1,2-Dichloroethene	ND	0.005	106	109	2.8	109	112	2.7	70 - 130	30
trans-1,3-Dichloropropene	ND	0.005	119	120	0.8	99	102	3.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.005	111	109	1.8	86	89	3.4	70 - 130	30
Trichloroethene	ND	0.005	109	111	1.8	107	111	3.7	70 - 130	30
Trichlorofluoromethane	ND	0.005	81	81	0.0	82	84	2.4	70 - 130	30
Trichlorotrifluoroethane	ND	0.005	91	94	3.2	94	98	4.2	70 - 130	30
Vinyl chloride	ND	0.005	83	85	2.4	82	85	3.6	70 - 130	30
% 1,2-dichlorobenzene-d4	97	%	101	100	1.0	100	99	1.0	70 - 130	30
% Bromofluorobenzene	101	%	104	103	1.0	99	99	0.0	70 - 130	30
% Dibromofluoromethane	92	%	95	97	2.1	95	95	0.0	70 - 130	30
% Toluene-d8	99	%	103	102	1.0	104	101	2.9	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 410939 (mg/Kg), QC Sample No: BZ47371 (BZ46985)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	0.23	61	59	3.3	57			30 - 130	30
1,2,4-Trichlorobenzene	ND	0.23	57	55	3.6	53			30 - 130	30
1,2-Dichlorobenzene	ND	0.18	53	50	5.8	49			30 - 130	30
1,2-Diphenylhydrazine	ND	0.23	56	57	1.8	57			30 - 130	30
1,3-Dichlorobenzene	ND	0.23	50	48	4.1	45			30 - 130	30
1,4-Dichlorobenzene	ND	0.23	51	50	2.0	50			30 - 130	30
2,4,5-Trichlorophenol	ND	0.23	54	54	0.0	51			30 - 130	30
2,4,6-Trichlorophenol	ND	0.13	55	56	1.8	53			30 - 130	30



QA/QC Data

SDG I.D.: GBZ46985

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dichlorophenol	ND	0.13	61	60	1.7	57			30 - 130	30	
2,4-Dimethylphenol	ND	0.23	65	64	1.6	61			30 - 130	30	
2,4-Dinitrophenol	ND	0.23	<10	<10	NC	19			30 - 130	30	l,m
2,4-Dinitrotoluene	ND	0.13	62	62	0.0	62			30 - 130	30	
2,6-Dinitrotoluene	ND	0.13	54	56	3.6	54			30 - 130	30	
2-Chloronaphthalene	ND	0.23	62	62	0.0	59			30 - 130	30	
2-Chlorophenol	ND	0.23	54	54	0.0	51			30 - 130	30	
2-Methylnaphthalene	ND	0.23	57	56	1.8	55			30 - 130	30	
2-Methylphenol (o-cresol)	ND	0.23	60	60	0.0	57			30 - 130	30	
2-Nitroaniline	ND	0.33	85	86	1.2	86			30 - 130	30	
2-Nitrophenol	ND	0.23	65	64	1.6	60			30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	0.23	58	57	1.7	52			30 - 130	30	
3,3'-Dichlorobenzidine	ND	0.13	70	69	1.4	65			30 - 130	30	
3-Nitroaniline	ND	0.33	72	73	1.4	71			30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	0.23	<10	<10	NC	38			30 - 130	30	l
4-Bromophenyl phenyl ether	ND	0.23	60	62	3.3	59			30 - 130	30	
4-Chloro-3-methylphenol	ND	0.23	63	62	1.6	62			30 - 130	30	
4-Chloroaniline	ND	0.23	65	64	1.6	61			30 - 130	30	
4-Chlorophenyl phenyl ether	ND	0.23	60	60	0.0	60			30 - 130	30	
4-Nitroaniline	ND	0.23	61	61	0.0	59			30 - 130	30	
4-Nitrophenol	ND	0.23	47	44	6.6	46			30 - 130	30	
Acenaphthene	ND	0.23	65	66	1.5	63			30 - 130	30	
Acenaphthylene	ND	0.13	57	58	1.7	56			30 - 130	30	
Acetophenone	ND	0.23	52	51	1.9	48			30 - 130	30	
Aniline	ND	0.33	55	53	3.7	52			30 - 130	30	
Anthracene	ND	0.23	65	65	0.0	63			30 - 130	30	
Benz(a)anthracene	ND	0.23	64	63	1.6	62			30 - 130	30	
Benzidine	ND	0.33	35	34	2.9	29			30 - 130	30	m
Benzo(a)pyrene	ND	0.13	64	64	0.0	63			30 - 130	30	
Benzo(b)fluoranthene	ND	0.16	68	64	6.1	67			30 - 130	30	
Benzo(ghi)perylene	ND	0.23	54	56	3.6	49			30 - 130	30	
Benzo(k)fluoranthene	ND	0.23	66	68	3.0	64			30 - 130	30	
Benzoic Acid	ND	0.33	<10	<10	NC	15			30 - 130	30	l,m
Benzyl butyl phthalate	ND	0.23	65	63	3.1	63			30 - 130	30	
Bis(2-chloroethoxy)methane	ND	0.23	58	57	1.7	55			30 - 130	30	
Bis(2-chloroethyl)ether	ND	0.13	46	45	2.2	42			30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	0.23	45	43	4.5	41			30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	0.23	65	64	1.6	64			30 - 130	30	
Carbazole	ND	0.23	65	64	1.6	63			30 - 130	30	
Chrysene	ND	0.23	66	64	3.1	65			30 - 130	30	
Dibenz(a,h)anthracene	ND	0.13	60	60	0.0	59			30 - 130	30	
Dibenzofuran	ND	0.23	61	61	0.0	59			30 - 130	30	
Diethyl phthalate	ND	0.23	63	62	1.6	61			30 - 130	30	
Dimethylphthalate	ND	0.23	60	61	1.7	59			30 - 130	30	
Di-n-butylphthalate	ND	0.67	66	67	1.5	63			30 - 130	30	
Di-n-octylphthalate	ND	0.23	65	65	0.0	63			30 - 130	30	
Fluoranthene	ND	0.23	68	65	4.5	67			30 - 130	30	
Fluorene	ND	0.23	66	66	0.0	64			30 - 130	30	
Hexachlorobenzene	ND	0.13	66	66	0.0	64			30 - 130	30	
Hexachlorobutadiene	ND	0.23	56	55	1.8	53			30 - 130	30	
Hexachlorocyclopentadiene	ND	0.23	53	49	7.8	46			30 - 130	30	
Hexachloroethane	ND	0.13	48	46	4.3	45			30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	58	58	0.0	57			30 - 130	30	

QA/QC Data

SDG I.D.: GBZ46985

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Isophorone	ND	0.13	54	54	0.0	51			30 - 130	30
Naphthalene	ND	0.23	63	61	3.2	59			30 - 130	30
Nitrobenzene	ND	0.13	56	55	1.8	53			30 - 130	30
N-Nitrosodimethylamine	ND	0.23	46	46	0.0	45			30 - 130	30
N-Nitrosodi-n-propylamine	ND	0.13	61	61	0.0	57			30 - 130	30
N-Nitrosodiphenylamine	ND	0.13	63	62	1.6	61			30 - 130	30
Pentachloronitrobenzene	ND	0.23	65	66	1.5	64			30 - 130	30
Pentachlorophenol	ND	0.23	11	15	30.8	28			30 - 130	30
Phenanthrene	ND	0.13	65	67	3.0	66			30 - 130	30
Phenol	ND	0.23	60	58	3.4	55			30 - 130	30
Pyrene	ND	0.23	69	67	2.9	68			30 - 130	30
Pyridine	ND	0.23	34	34	0.0	37			30 - 130	30
% 2,4,6-Tribromophenol	63	%	63	66	4.7	61			30 - 130	30
% 2-Fluorobiphenyl	71	%	63	63	0.0	59			30 - 130	30
% 2-Fluorophenol	49	%	54	52	3.8	47			30 - 130	30
% Nitrobenzene-d5	62	%	57	57	0.0	54			30 - 130	30
% Phenol-d5	56	%	61	60	1.7	55			30 - 130	30
% Terphenyl-d14	69	%	70	70	0.0	66			30 - 130	30

l,m,r

Comment:

MSD not reported for this batch.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 410957 (mg/Kg), QC Sample No: BZ47597 2X (BZ46985)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	0.033	92	83	10.3	70	71	1.4	40 - 140	30
PCB-1221	ND	0.033							40 - 140	30
PCB-1232	ND	0.033							40 - 140	30
PCB-1242	ND	0.033							40 - 140	30
PCB-1248	ND	0.033							40 - 140	30
PCB-1254	ND	0.033							40 - 140	30
PCB-1260	ND	0.033	100	97	3.0	79	81	2.5	40 - 140	30
PCB-1262	ND	0.033							40 - 140	30
PCB-1268	ND	0.033							40 - 140	30
% DCBP (Surrogate Rec)	49	%	115	107	7.2	86	86	0.0	30 - 150	30
% TCMX (Surrogate Rec)	41	%	96	94	2.1	79	73	7.9	30 - 150	30

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

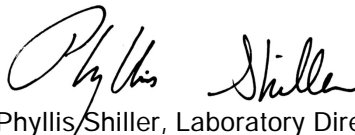
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 December 04, 2017

Monday, December 04, 2017

Criteria: CT: GAM, GBM, I/C, RC

State: CT

## Sample Criteria Exceedances Report

GBZ46985 - TRC-DOT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance 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:** TRC Environmental Corp.

**Project Location:** CONN DOT MERRITT 7 TRAIN STATION      **Project Number:**

**Laboratory Sample ID(s):** BZ46985      **Sampling Date(s):** 11/28/2017

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

<b>1</b>	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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1A</b>	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1B</b>	<u><i>VPH and EPH methods only:</i></u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<b>2</b>	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>3</b>	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<b>4</b>	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: ETPH Narration, ICP Narration, SVOA Narration, VOA Narration.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>5</b>	a) Were reporting limits specified or referenced on the chain-of-custody?  b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>6</b>	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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>7</b>	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

**I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.**

**Authorized Signature:** Ethan Lee      **Position:** Project Manager

**Printed Name:** Ethan Lee      **Date:** Monday, December 04, 2017

**Name of Laboratory** Phoenix Environmental Labs, Inc.

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



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
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## RCP Certification Report

December 04, 2017

SDG I.D.: GBZ46985

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### 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.

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### ETPH Narration

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

**QC Batch 410944 (Samples: BZ46985): -----**

**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. (Ext. Petroleum H.C. (C9-C36))**

#### Instrument:

**AU-FID11 11/29/17-1** Jeff Bucko, Chemist 11/29/17

BZ46985

The initial calibration (ETPHO26I) 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 410944 (BZ46975)**

BZ46985

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: Ext. Petroleum H.C. (C9-C36)(31.8%)

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 11/29/17 09:57** Rick Schweitzer, Chemist 11/29/17

BZ46985

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 411109 (BZ47646)**

BZ46985



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## Certification Report

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### **Mercury Narration**

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%.  
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 411112 (BZ46985)**

BZ46985

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

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### **ICP Metals Narration**

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

**QC Batch 410950 (Samples: BZ46985): -----**

**The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Barium)**

### **Instrument:**

#### **ARCOS 11/28/17 07:10**

Mike Arsenault, Chemist 11/28/17

BZ46985

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 11/29/17 07:20**

Mike Arsenault, Chemist 11/29/17

BZ46985

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.



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## Certification Report

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SDG I.D.: GBZ46985

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### **ICP Metals Narration**

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

#### **QC (Batch Specific):**

##### **Batch 410950 (BZ46875)**

BZ46985

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

##### **Batch 411115 (BZ45338)**

BZ46985

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

---

### **PCB Narration**

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

#### **Instrument:**

##### **AU-ECD24 11/29/17-1**

Adam Werner, Chemist 11/29/17

BZ46985

The initial calibration (PC1127AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC1127BI) 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 410957 (BZ47597)**

BZ46985

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.

---

### **SVOA Narration**

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

#### **QC Batch 410939 (Samples: BZ46985): -----**

**The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol, Benzoic Acid, Pentachlorophenol)**

**The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (4,6-Dinitro-2-methylphenol)**

#### **Instrument:**

##### **CHEM29 11/28/17-2**

Damien Drobinski, Chemist 11/28/17

BZ46985

Initial Calibration Verification (CHEM29/SPLIT\_1121):

99% of target compounds met criteria.

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## RCP Certification Report

December 04, 2017

SDG I.D.: GBZ46985

### **SVOA Narration**

The following compounds had %RSDs >20%: 2-Nitroaniline 22% (20%)  
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.094 (0.1)  
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/1128\_18-SPLIT\_1121):

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-Nitroaniline 31%L (30%), Pentachlorophenol 60%L (30%)

The following compounds did not meet maximum % deviations: Pentachlorophenol 60%L (40%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1), Acenaphthene 0.841 (0.9)

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

### **QC (Batch Specific):**

#### **Batch 410939 (BZ47371)**

BZ46985

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(11%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(15%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: Pentachlorophenol(30.8%)

MSD not reported for this batch.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

### **VOA Narration**

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

**QC Batch 411126 (Samples: BZ46985): -----**

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

### **Instrument:**

#### **CHEM14 11/28/17-1**

Jane Li, Chemist 11/28/17

BZ46985

Initial Calibration Verification (CHEM14/VT-1121):

90% of target compounds met criteria.

The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Acetone 31% (20%), Bromoform 24% (20%), cis-1,3-Dichloropropene 22% (20%), Methylene chloride 29% (20%), Naphthalene 35% (20%), trans-1,3-Dichloropropene 21% (20%), trans-1,4-dichloro-2-butene 36% (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 (CHEM14/1128\_01-VT-1121):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.





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## RCP Certification Report

December 04, 2017

SDG I.D.: GBZ46985

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### ***VOA Narration***

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

### **QC (Batch Specific):**

#### **Batch 411126 (BZ47165)**

BZ46985

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(65%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(65%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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

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

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### ***Temperature Narration***

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



### 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

Cooler: Yes  No   
Coolant: IPK  ICE   
Temp: 7 C Pg of

Data Delivery:  
 Fax #  
 Email: Windahl@resolutions.com

Customer: TRC  
Address: 21 Griffin Road North  
Windsor, CT 06095  
Phone #: \_\_\_\_\_  
Fax #: \_\_\_\_\_

Project: Cann Pot Merritt 7 Train Station Project P.O.  
Report to: Chris Windahl  
Invoice to: Same  
Phone #: \_\_\_\_\_  
Fax #: \_\_\_\_\_

This section MUST be completed with Bottle Quantities.

Client Sample Information - Identification  
Date: 11/28/17

Sampler's Signature:

Matrix Code:  
 DW=Drinking Water GW=Ground Water SW=Surface Water WM=Waste Water  
 RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe  
 OL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
410985	SB-17	S	11/28/17	930

Analysis Request	YKS	ETPH	TRBS	TOTAL PCB A B	TOTAL PCB A B	40 ml VOA Vial (1 methanol)	GL Amber 100ml 1.5e (1 HCl)	PL As is 250ml 1.500ml 1.500ml	PL HNO3 250ml	Bacteria (as is)	Bacteria (WH10)
32	X	X	X	X	X						(5)

Relinquished by:	Accepted by:
Date: <u>11/28/17</u>	Time: <u>1002</u>
Date: <u>11/28/17</u>	Time: <u>1206</u>
RI <input type="checkbox"/> Direct Exposure (Residential) <input type="checkbox"/> GW <input type="checkbox"/> Other	CT <input checked="" type="checkbox"/> RCP Cert <input type="checkbox"/> GW Protection <input type="checkbox"/> SW Protection <input checked="" type="checkbox"/> GA Mobility <input checked="" type="checkbox"/> GB Mobility <input checked="" type="checkbox"/> Residential DEC <input checked="" type="checkbox"/> I/C DEC <input type="checkbox"/> Other
MA <input type="checkbox"/> MCP Certification <input type="checkbox"/> GW-1 <input type="checkbox"/> GW-2 <input type="checkbox"/> GW-3 <input type="checkbox"/> S-1 <input type="checkbox"/> S-2 <input type="checkbox"/> S-3 <input type="checkbox"/> MWRA eSMART <input type="checkbox"/> Other	MA <input type="checkbox"/> RCP Cert <input type="checkbox"/> GW Protection <input type="checkbox"/> SW Protection <input checked="" type="checkbox"/> GA Mobility <input checked="" type="checkbox"/> GB Mobility <input checked="" type="checkbox"/> Residential DEC <input checked="" type="checkbox"/> I/C DEC <input type="checkbox"/> Other
Turnaround: <input type="checkbox"/> 1 Day* <input type="checkbox"/> 2 Days* <input type="checkbox"/> 3 Days* <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other	RI <input type="checkbox"/> Direct Exposure (Residential) <input type="checkbox"/> GW <input type="checkbox"/> Other
Comments, Special Requirements or Regulations:	State where samples were collected: <u>CT</u>

\* SURCHARGE APPLIES

\* SURCHARGE APPLIES



Friday, November 03, 2017

Attn: Mr. Christopher Lindahl  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Project ID: CONN DOT MERRITT 7 RR STATION  
Sample ID#s: BZ28848 - BZ28867

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

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

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

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

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

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
VT Lab Registration #VT11301



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

9:30  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28848

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.12	0.78	mg/Kg	1	11/01/17	MA	SW6010C
Barium	112	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	0.42	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	37.8	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	5.75	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	90		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BV/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 55 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	70		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	93		%	10	10/31/17	AW	30 - 150 %
% TCMX	87		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/30/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Benzoic acid	ND	720	ug/Kg	1	10/30/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/30/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	720	ug/Kg	1	10/30/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	10/30/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	10/30/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	67		%	1	10/30/17	DD	30 - 130 %
% 2-Fluorobiphenyl	54		%	1	10/30/17	DD	30 - 130 %
% 2-Fluorophenol	51		%	1	10/30/17	DD	30 - 130 %
% Nitrobenzene-d5	55		%	1	10/30/17	DD	30 - 130 %
% Phenol-d5	56		%	1	10/30/17	DD	30 - 130 %
% Terphenyl-d14	49		%	1	10/30/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

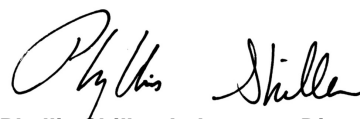
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**





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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

9:45  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28849

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	5.11	0.70	mg/Kg	1	11/01/17	MA	SW6010C
Barium	89.7	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	35.8	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	4.11	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.013	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	0.098	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	94		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BV/V	SW3545A
Soil Extraction for SVOA	Completed				10/31/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) 210 53 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	82		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	92		%	10	10/31/17	AW	30 - 150 %
% TCMX	94		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	160	ug/Kg	50	10/31/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,1-Dichloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,1-Dichloroethene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,1-Dichloropropene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2-Dibromoethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2-Dichloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,2-Dichloropropane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,3-Dichloropropane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
2,2-Dichloropropane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
2-Chlorotoluene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
2-Hexanone	ND	1300	ug/Kg	50	10/31/17	JLI	SW8260C
2-Isopropyltoluene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
4-Chlorotoluene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	10/31/17	JLI	SW8260C
Acetone	ND	13000	ug/Kg	50	10/31/17	JLI	SW8260C
Acrylonitrile	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Benzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Bromobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Bromochloromethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C

Client ID: SB-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Bromoform	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Bromomethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Carbon Disulfide	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Carbon tetrachloride	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Chlorobenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Chloroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Chloroform	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Chloromethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Dibromochloromethane	ND	160	ug/Kg	50	10/31/17	JLI	SW8260C
Dibromomethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Dichlorodifluoromethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Ethylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Hexachlorobutadiene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Isopropylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
m&p-Xylene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	1600	ug/Kg	50	10/31/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	540	ug/Kg	50	10/31/17	JLI	SW8260C
Methylene chloride	ND	540	ug/Kg	50	10/31/17	JLI	SW8260C
Naphthalene	4900	270	ug/Kg	50	10/31/17	JLI	SW8260C
n-Butylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
n-Propylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
o-Xylene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
p-Isopropyltoluene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
sec-Butylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Styrene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
tert-Butylbenzene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Tetrachloroethene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	540	ug/Kg	50	10/31/17	JLI	SW8260C
Toluene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Total Xylenes	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	540	ug/Kg	50	10/31/17	JLI	SW8260C
Trichloroethene	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Trichlorofluoromethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
Vinyl chloride	ND	270	ug/Kg	50	10/31/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	50	10/31/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	50	10/31/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	50	10/31/17	JLI	70 - 130 %
% Toluene-d8	99		%	50	10/31/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Client ID: SB-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylnaphthalene	490	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthene	710	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthylene	500	240	ug/Kg	1	11/01/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Anthracene	1400	240	ug/Kg	1	11/01/17	DD	SW8270D
Benz(a)anthracene	3100	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(a)pyrene	2400	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(b)fluoranthene	2400	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(ghi)perylene	1500	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(k)fluoranthene	2100	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	11/01/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Carbazole	890	350	ug/Kg	1	11/01/17	DD	SW8270D
Chrysene	3400	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenz(a,h)anthracene	380	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenzofuran	570	240	ug/Kg	1	11/01/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	690	ug/Kg	1	11/01/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Fluoranthene	7700	1200	ug/Kg	5	11/01/17	DD	SW8270D
Fluorene	1000	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1500	240	ug/Kg	1	11/01/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Naphthalene	660	240	ug/Kg	1	11/01/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Phenanthrene	7200	1200	ug/Kg	5	11/01/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Pyrene	6200	1200	ug/Kg	5	11/01/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	64		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorobiphenyl	77		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorophenol	51		%	1	11/01/17	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	11/01/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/01/17	DD	30 - 130 %
% Terphenyl-d14	70		%	1	11/01/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

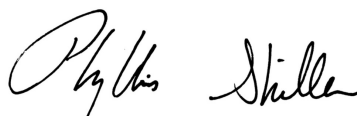
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:

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

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

If there are any questions regarding this data, please call Phoenix Client Services.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

10:00  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28850

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	8.10	0.75	mg/Kg	1	11/01/17	MA	SW6010C
Barium	90.5	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	25.7	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	3.91	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	95		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BV/V	SW3545A
Soil Extraction for SVOA	Completed				10/31/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 51 mg/Kg 1 10/31/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	10/31/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	85		%	1	10/31/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	96		%	10	10/31/17	AW	30 - 150 %
% TCMX	87		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C



Client ID: SB-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.6	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.6	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.6	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Client ID: SB-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	11/01/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	690	ug/Kg	1	11/01/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	11/01/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	67		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorobiphenyl	54		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	11/01/17	DD	30 - 130 %
% Nitrobenzene-d5	57		%	1	11/01/17	DD	30 - 130 %
% Phenol-d5	58		%	1	11/01/17	DD	30 - 130 %
% Terphenyl-d14	59		%	1	11/01/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

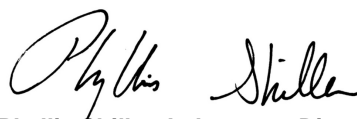
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



**Environmental Laboratories, Inc.**

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

**Analysis Report**  
November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Sample Information

Matrix: SOIL  
Location Code: TRC  
Rush Request: 72 Hour  
P.O.#:

Custody Information

Collected by:  
Received by: B  
Analyzed by: see "By" below

Date

10/27/17  
10/27/17

Time

9:00  
17:48

Laboratory Data

SDG ID: GBZ28848  
Phoenix ID: BZ28851

Project ID: CONN DOT MERRITT 7 RR STATION  
Client ID: SB102717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	250	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	100		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	10/28/17	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

**Comments:**

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**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

10:10  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28852

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	5.55	0.72	mg/Kg	1	11/01/17	MA	SW6010C
Barium	82.1	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	23.5	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	3.73	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	94		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BV/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 53 mg/Kg 1 10/31/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	10/31/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	88		%	1	10/31/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	94		%	10	10/31/17	AW	30 - 150 %
% TCMX	87		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C



Client ID: SB-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Client ID: SB-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	700	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	80		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	62		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	71		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

**Comments:**

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.

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**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

10:40  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28853

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	4.68	0.78	mg/Kg	1	11/01/17	MA	SW6010C
Barium	78.0	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	23.4	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	2.96	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	91		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	SJ/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum H.C. (C9-C36) ND 54 mg/Kg 1 10/31/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	10/31/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	81		%	1	10/31/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	98		%	10	10/31/17	AW	30 - 150 %
% TCMX	93		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.3	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.7	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	730	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	67		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	71		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	55		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	66		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

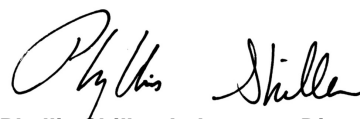
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**





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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

11:15  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28854

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.03	0.70	mg/Kg	1	11/01/17	MA	SW6010C
Barium	96.2	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	31.0	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	5.09	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	88		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	SJ/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum H.C. (C9-C36) ND 56 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	74		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	99		%	10	10/31/17	AW	30 - 150 %
% TCMX	91		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	740	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	81		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	53		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	59		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	61		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	63		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

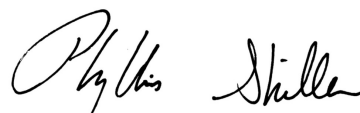
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

11:35  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28855

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.78	0.65	mg/Kg	1	11/01/17	MA	SW6010C
Barium	78.3	0.33	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	0.36	0.33	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	24.0	0.33	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	0.05	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	45.1	0.33	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.041	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	0.029	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	92		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) 100 53 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	92		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	96		%	10	10/31/17	AW	30 - 150 %
% TCMX	90		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	109		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	85		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D



Client ID: SB-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	870	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	1100	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	1100	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	720	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	1100	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	720	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	1100	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	720	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	710	250	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	340	250	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	73		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	58		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	55		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	53		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

If there are any questions regarding this data, please call Phoenix Client Services.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

11:40  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28856

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-04A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	5.38	0.76	mg/Kg	1	11/01/17	MA	SW6010C
Barium	73.8	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	26.3	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	0.07	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	43.2	0.38	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.035	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	0.023	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	91		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) 120 54 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	99		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	81		%	10	10/31/17	AW	30 - 150 %
% TCMX	80		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	930	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	890	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	720	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	1200	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	720	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	1300	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	940	250	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	410	250	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	1300	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	83		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	71		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	66		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	63		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	61		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A



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

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

If there are any questions regarding this data, please call Phoenix Client Services.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

11:50  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28857

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.40	0.69	mg/Kg	1	11/01/17	MA	SW6010C
Barium	117	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	32.4	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	8.92	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.019	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	96		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 51 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	117		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	93		%	10	10/31/17	AW	30 - 150 %
% TCMX	86		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.9	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	8.9	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.9	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.9	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D

Client ID: SB-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	82		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	67		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	66		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

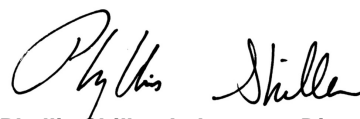
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

12:50  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28858

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	5.40	0.69	mg/Kg	1	11/01/17	MA	SW6010C
Barium	79.2	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	0.49	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	23.1	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	0.05	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	12.5	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	0.013	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.038	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	0.012	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	0.022	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	96		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/31/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BV/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36)      79      52      mg/Kg      1      11/01/17      JRB      CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	90		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	340	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	103		%	10	10/31/17	AW	30 - 150 %
% TCMX	95		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C



Client ID: SB-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.0	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.0	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.0	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.0	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Client ID: SB-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitroaniline	ND	540	ug/Kg	1	11/01/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Aniline	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Benzoic acid	ND	680	ug/Kg	1	11/01/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Carbazole	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	680	ug/Kg	1	11/01/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodimethylamine	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	11/01/17	DD	SW8270D
Pyridine	ND	340	ug/Kg	1	11/01/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	68		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorobiphenyl	54		%	1	11/01/17	DD	30 - 130 %
% 2-Fluorophenol	44		%	1	11/01/17	DD	30 - 130 %
% Nitrobenzene-d5	49		%	1	11/01/17	DD	30 - 130 %
% Phenol-d5	51		%	1	11/01/17	DD	30 - 130 %
% Terphenyl-d14	48		%	1	11/01/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

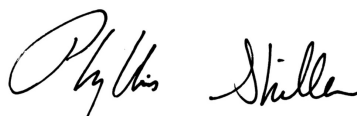
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

If there are any questions regarding this data, please call Phoenix Client Services.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

13:05  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28859

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	2.28	0.73	mg/Kg	1	11/01/17	MA	SW6010C
Barium	92.6	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	27.7	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	3.41	0.36	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.043	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	88		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 55 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	73		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	90		%	10	10/31/17	AW	30 - 150 %
% TCMX	83		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Client ID: SB-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	750	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	89		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	70		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	62		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	70		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	74		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

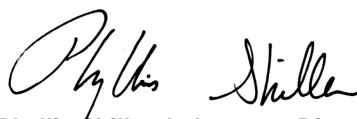
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

13:30  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28860

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	37.2	0.70	mg/Kg	1	11/01/17	MA	SW6010C
Barium	93.0	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	24.4	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	21.0	0.35	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	0.153	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.066	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	0.035	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	89		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 56 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	85		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	55		%	10	10/31/17	AW	30 - 150 %
% TCMX	48		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	280	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	290	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	750	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	340	260	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	330	260	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	90		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	67		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	68		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

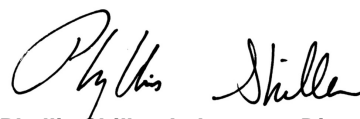
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

13:45  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28861

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	4.41	0.65	mg/Kg	1	11/01/17	MA	SW6010C
Barium	108	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	31.6	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	5.81	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	92		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 54 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	88		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	88		%	10	10/31/17	AW	30 - 150 %
% TCMX	83		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C



Client ID: SB-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	8.7	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.7	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.3	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	710	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	710	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	92		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	68		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	68		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

14:05  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28862

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.19	0.78	mg/Kg	1	11/01/17	MA	SW6010C
Barium	80.8	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	27.9	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	7.86	0.39	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	86		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36)      170      57      mg/Kg      1      11/01/17      JRB      CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	96		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	11/01/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	88		%	10	11/01/17	AW	30 - 150 %
% TCMX	81		%	10	11/01/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.9	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.9	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.9	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.9	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	103		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	610	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	1200	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	1400	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	1300	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	910	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	1200	270	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	760	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	1500	270	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	760	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	2000	270	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	930	270	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	500	270	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	270	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	2000	270	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	380	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	102		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	77		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	64		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	72		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	73		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A



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

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

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



**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

14:20  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28863

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	2.76	0.63	mg/Kg	1	11/01/17	MA	SW6010C
Barium	61.8	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	16.7	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	3.44	0.32	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.011	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	93		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 53 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	72		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	11/01/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	74		%	10	11/01/17	AW	30 - 150 %
% TCMX	66		%	10	11/01/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C

Client ID: SB-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.8	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Client ID: SB-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	710	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	710	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	62		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	58		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	55		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	59		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

**Comments:**

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.

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**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

14:35  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28864

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.30	0.30	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	3.09	0.61	mg/Kg	1	11/01/17	MA	SW6010C
Barium	70.1	0.30	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.30	0.30	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	25.3	0.30	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	9.60	0.30	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.2	1.2	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	0.024	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	97		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) 110 51 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	97		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1221	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1232	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1242	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1248	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1254	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1260	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1262	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
PCB-1268	ND	340	ug/Kg	10	11/01/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	101		%	10	11/01/17	AW	30 - 150 %
% TCMX	93		%	10	11/01/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C



Client ID: SB-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	460	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	580	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	520	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	510	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	500	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	580	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	770	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	490	240	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	300	240	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	770	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	340	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	68		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	58		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	68		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	64		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	66		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

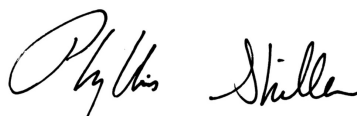
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

If there are any questions regarding this data, please call Phoenix Client Services.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

15:00  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28865

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: SB-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Arsenic	4.51	0.69	mg/Kg	1	11/01/17	MA	SW6010C
Barium	136	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Cadmium	< 0.34	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Chromium	31.5	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Mercury	0.04	0.03	mg/Kg	1	10/30/17	RS	SW7471B
Lead	7.91	0.34	mg/Kg	1	11/01/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/01/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Percent Solid	93		%		10/27/17	Q	SW846-%Solid
Soil Extraction for PCB	Completed				10/30/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	BB/VCK	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/30/17	L/AG	SW3050B

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36) ND 54 mg/Kg 1 11/01/17 JRB CTETPH 8015D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	77		%	1	11/01/17	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	98		%	10	10/31/17	AW	30 - 150 %
% TCMX	90		%	10	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	10/28/17	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	10/28/17	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.2	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	10/28/17	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	103		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/28/17	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D

Client ID: SB-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	10/31/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzidine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	690	ug/Kg	1	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	10/31/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	10/31/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	76		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	77		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	65		%	1	10/31/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

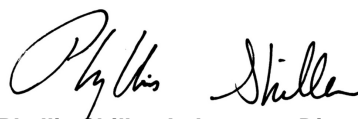
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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.  
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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: WATER  
 Location Code: TRC  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: B  
 Analyzed by: see "By" below

Date

10/27/17  
 10/27/17

Time

9:00  
 17:48

Laboratory Data

SDG ID: GBZ28848  
 Phoenix ID: BZ28866

Project ID: CONN DOT MERRITT 7 RR STATION  
 Client ID: EB102717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/30/17	MA	SW6010C/E200.7
Arsenic	< 0.004	0.004	mg/L	1	10/30/17	MA	SW6010C/E200.7
Barium	< 0.002	0.002	mg/L	1	10/30/17	MA	SW6010C/E200.7
Cadmium	< 0.001	0.001	mg/L	1	10/30/17	MA	SW6010C/E200.7
Chromium	< 0.001	0.001	mg/L	1	10/30/17	MA	SW6010C/E200.7
Mercury	< 0.0002	0.0002	mg/L	1	10/31/17	RS	SW7470/245.1
Lead	< 0.002	0.002	mg/L	1	10/30/17	MA	SW6010C/E200.7
Selenium	< 0.010	0.010	mg/L	1	10/30/17	MA	SW6010C/E200.7
Extraction of CT ETPH	Completed				10/27/17	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/30/17	W/W	SW7470/245.1
PCB Extraction	Completed				10/27/17		SW3510C
Semi-Volatile Extraction	Completed				10/27/17	P/D/D	SW3520C
Total Metals Digestion	Completed				10/28/17	AG	

**TPH by GC (Extractable Products)**

Ext. Petroleum H.C. (C9-C36)	ND	0.073	mg/L	1	10/30/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/30/17	JRB	CTETPH 8015D

**QA/QC Surrogates**

% n-Pentacosane	70		%	1	10/30/17	JRB	50 - 150 %
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**Polychlorinated Biphenyls**

PCB-1016	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1221	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1232	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1242	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1248	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1254	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1260	ND	0.51	ug/L	1	10/31/17	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1262	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
PCB-1268	ND	0.51	ug/L	1	10/31/17	AW	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	92		%	1	10/31/17	AW	30 - 150 %
% TCMX	103		%	1	10/31/17	AW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/28/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/28/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
Acetone	ND	25	ug/L	1	10/28/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/28/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/28/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/28/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/28/17	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Dibromomethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/28/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/28/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/28/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/28/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/28/17	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	10/28/17	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	10/28/17	MH	70 - 130 %
% Toluene-d8	95		%	1	10/28/17	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/01/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/01/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/01/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/01/17	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Nitroaniline	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/01/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/01/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/01/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/01/17	DD	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	61		%	1	11/01/17	DD	15 - 110 %
% 2-Fluorobiphenyl	25		%	1	11/01/17	DD	30 - 130 % 3
% 2-Fluorophenol	<10		%	1	11/01/17	DD	15 - 110 % 3
% Nitrobenzene-d5	<10		%	1	11/01/17	DD	30 - 130 % 3
% Phenol-d5	10		%	1	11/01/17	DD	15 - 110 % 3
% Terphenyl-d14	71		%	1	11/01/17	DD	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	10/31/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	10/31/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.05	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	10/31/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	10/31/17	DD	SW8270D (SIM)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/31/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	10/31/17	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	10/31/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	10/31/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	10/31/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	10/31/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	10/31/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	10/31/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/31/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	10/31/17	DD	SW8270D (SIM)
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	63		%	1	10/31/17	DD	15 - 110 %
% 2-Fluorobiphenyl	25		%	1	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	<10		%	1	10/31/17	DD	15 - 110 %
% Nitrobenzene-d5	<10		%	1	10/31/17	DD	30 - 130 %
% Phenol-d5	10		%	1	10/31/17	DD	15 - 110 %
% Terphenyl-d14	90		%	1	10/31/17	DD	30 - 130 %

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

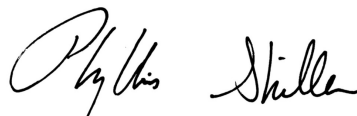
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

**Semi-Volatile Comment:**

Poor surrogate recovery was observed for semivolatiles and there was insufficient sample for re-extraction.

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

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**Phyllis Shiller, Laboratory Director**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



**Environmental Laboratories, Inc.**

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

**Analysis Report**  
November 03, 2017

FOR: Attn: Mr. Christopher Lindahl  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Sample Information

Matrix: SOIL  
Location Code: TRC  
Rush Request: 72 Hour  
P.O.#:

Custody Information

Collected by:  
Received by: B  
Analyzed by: see "By" below

Date

10/27/17  
10/27/17

Time

9:00  
17:48

Laboratory Data

SDG ID: GBZ28848  
Phoenix ID: BZ28867

Project ID: CONN DOT MERRITT 7 RR STATION  
Client ID: TB HL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
2-Chlorotoluene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
2-Hexanone	ND	1300	ug/Kg	50	10/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
4-Chlorotoluene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	10/28/17	JLI	SW8260C

Client ID: TB HL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5000	ug/Kg	50	10/28/17	JLI	SW8260C
Acrylonitrile	ND	500	ug/Kg	50	10/28/17	JLI	SW8260C
Benzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Bromobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Bromochloromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Bromodichloromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Bromoform	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Bromomethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Chlorobenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Chloroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Chloroform	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Chloromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Dibromomethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Ethylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
m&p-Xylene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Methylene chloride	ND	500	ug/Kg	50	10/28/17	JLI	SW8260C
Naphthalene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
o-Xylene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Styrene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	10/28/17	JLI	SW8260C
Toluene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Total Xylenes	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	10/28/17	JLI	SW8260C
Trichloroethene	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
Vinyl chloride	ND	250	ug/Kg	50	10/28/17	JLI	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	100		%	50	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	50	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	93		%	50	10/28/17	JLI	70 - 130 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99		%	50	10/28/17	JLI	70 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

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

**Comments:**

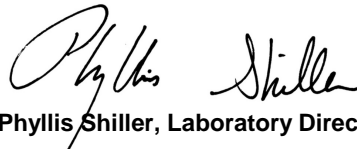
TRIP BLANK INCLUDED.

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**

**November 03, 2017**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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# QA/QC Report

November 03, 2017

## QA/QC Data

SDG I.D.: GBZ28848

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 407492 (mg/L), QC Sample No: BZ27673 (BZ28866)													
<u>ICP Metals - Aqueous</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	97.3			96.9			75 - 125	20
Barium	BRL	0.002	0.015	0.014	6.90	97.0			95.7			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	95.6			94.3			75 - 125	20
Chromium	BRL	0.001	0.004	0.003	NC	93.8			92.9			75 - 125	20
Lead	BRL	0.002	0.016	0.015	6.50	91.3			90.3			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	91.5			89.7			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	92.4			91.0			75 - 125	20
QA/QC Batch 407516 (mg/L), QC Sample No: BZ28524 (BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28866)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	90.4			93.0			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 407518 (mg/L), QC Sample No: BZ28624 (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865)													
<u>ICP Metals - SPLP Extraction</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	104			104			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	105			105			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	103			104			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	108			108			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	96.7			97.1			75 - 125	20
QA/QC Batch 407513 (mg/kg), QC Sample No: BZ28639 (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	101	96.2	4.9	93.0			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 407515 (mg/L), QC Sample No: BZ28754 (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	96.1			89.8			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 407573 (mg/kg), QC Sample No: BZ28849 (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.63	5.11	5.03	1.60	97.8			86.6			75 - 125	30
Barium	BRL	0.32	89.7	89.0	0.80	106			95.3			75 - 125	30
Cadmium	BRL	0.32	<0.35	<0.34	NC	98.5			89.0			75 - 125	30
Chromium	BRL	0.32	35.8	37.9	5.70	93.8			91.0			75 - 125	30
Lead	BRL	0.32	4.11	4.80	15.5	95.7			86.1			75 - 125	30

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Selenium	BRL	1.3	<1.4	<1.4	NC	89.6			77.0			75 - 125	30
Silver	BRL	0.32	<0.35	<0.34	NC	92.4			98.5			75 - 125	30
QA/QC Batch 407514 (mg/kg), QC Sample No: BZ28858 (BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865)													
Mercury - Soil	BRL	0.03	0.05	0.06	NC	94.6	96.6	2.1	90.3			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

November 03, 2017

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 407562 (ug/L), QC Sample No: BZ28298 (BZ28866)										
<u>Volatiles - Water</u>										
1,1,1,2-Tetrachloroethane	ND	1.0	96	102	6.1				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	104	109	4.7				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	104	118	12.6				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	95	107	11.9				70 - 130	30
1,1-Dichloroethane	ND	1.0	97	103	6.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	106	109	2.8				70 - 130	30
1,1-Dichloropropene	ND	1.0	99	103	4.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	93	105	12.1				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	99	105	5.9				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	97	104	7.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	102	110	7.5				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	82	98	17.8				70 - 130	30
1,2-Dibromoethane	ND	1.0	96	108	11.8				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	100	111	10.4				70 - 130	30
1,2-Dichloroethane	ND	1.0	95	99	4.1				70 - 130	30
1,2-Dichloropropane	ND	1.0	99	105	5.9				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	102	109	6.6				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	103	110	6.6				70 - 130	30
1,3-Dichloropropane	ND	1.0	95	106	10.9				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	99	107	7.8				70 - 130	30
2,2-Dichloropropane	ND	1.0	108	113	4.5				70 - 130	30
2-Chlorotoluene	ND	1.0	107	113	5.5				70 - 130	30
2-Hexanone	ND	5.0	71	75	5.5				70 - 130	30
2-Isopropyltoluene	ND	1.0	95	100	5.1				70 - 130	30
4-Chlorotoluene	ND	1.0	110	111	0.9				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	71	84	16.8				70 - 130	30
Acetone	ND	5.0	86	86	0.0				70 - 130	30
Acrylonitrile	ND	5.0	78	91	15.4				70 - 130	30
Benzene	ND	0.70	101	105	3.9				70 - 130	30
Bromobenzene	ND	1.0	102	110	7.5				70 - 130	30
Bromochloromethane	ND	1.0	101	111	9.4				70 - 130	30
Bromodichloromethane	ND	0.50	95	104	9.0				70 - 130	30
Bromoform	ND	1.0	83	95	13.5				70 - 130	30
Bromomethane	ND	1.0	110	129	15.9				70 - 130	30
Carbon Disulfide	ND	1.0	102	104	1.9				70 - 130	30
Carbon tetrachloride	ND	1.0	98	99	1.0				70 - 130	30
Chlorobenzene	ND	1.0	101	106	4.8				70 - 130	30
Chloroethane	ND	1.0	90	97	7.5				70 - 130	30
Chloroform	ND	1.0	105	109	3.7				70 - 130	30
Chloromethane	ND	1.0	89	95	6.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	106	115	8.1				70 - 130	30

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
cis-1,3-Dichloropropene	ND	0.40	96	103	7.0				70 - 130	30
Dibromochloromethane	ND	0.50	94	104	10.1				70 - 130	30
Dibromomethane	ND	1.0	96	104	8.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	76	78	2.6				70 - 130	30
Ethylbenzene	ND	1.0	101	107	5.8				70 - 130	30
Hexachlorobutadiene	ND	0.40	100	105	4.9				70 - 130	30
Isopropylbenzene	ND	1.0	99	108	8.7				70 - 130	30
m&p-Xylene	ND	1.0	99	107	7.8				70 - 130	30
Methyl ethyl ketone	ND	5.0	81	99	20.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	75	86	13.7				70 - 130	30
Methylene chloride	ND	1.0	99	105	5.9				70 - 130	30
Naphthalene	ND	1.0	101	115	13.0				70 - 130	30
n-Butylbenzene	ND	1.0	95	104	9.0				70 - 130	30
n-Propylbenzene	ND	1.0	98	109	10.6				70 - 130	30
o-Xylene	ND	1.0	103	109	5.7				70 - 130	30
p-Isopropyltoluene	ND	1.0	97	105	7.9				70 - 130	30
sec-Butylbenzene	ND	1.0	97	109	11.7				70 - 130	30
Styrene	ND	1.0	99	106	6.8				70 - 130	30
tert-Butylbenzene	ND	1.0	96	106	9.9				70 - 130	30
Tetrachloroethene	ND	1.0	93	100	7.3				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	68	85	22.2				70 - 130	30
Toluene	ND	1.0	100	106	5.8				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	106	109	2.8				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	93	100	7.3				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	85	93	9.0				70 - 130	30
Trichloroethene	ND	1.0	100	105	4.9				70 - 130	30
Trichlorofluoromethane	ND	1.0	81	85	4.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	85	90	5.7				70 - 130	30
Vinyl chloride	ND	1.0	91	91	0.0				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	97	99	2.0				70 - 130	30
% Bromofluorobenzene	94	%	94	97	3.1				70 - 130	30
% Dibromofluoromethane	93	%	92	97	5.3				70 - 130	30
% Toluene-d8	96	%	100	100	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 407391 (mg/L), QC Sample No: BZ28397 (BZ28866)

TPH by GC (Extractable Products) - Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	76	73	4.0				60 - 120	30
% n-Pentacosane	78	%	73	69	5.6				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 407395 (ug/L), QC Sample No: BZ28477 (BZ28866)

Polychlorinated Biphenyls - Water

PCB-1016	ND	0.050	86	68	23.4				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

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
PCB-1260	ND	0.050	90	72	22.2				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	92	%	97	86	12.0				30 - 150	20
% TCMX (Surrogate Rec)	84	%	91	73	22.0				30 - 150	20

Comment:

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

QA/QC Batch 407387 (ug/L), QC Sample No: BZ28477 (BZ28866)

### Semivolatiles (SIM) - Water

1,2,4,5-Tetrachlorobenzene	ND	0.50	58	60	3.4				30 - 130	20
2-Methylnaphthalene	ND	0.02	64	66	3.1				30 - 130	20
Acenaphthene	ND	0.02	77	77	0.0				30 - 130	20
Acenaphthylene	ND	0.02	79	78	1.3				30 - 130	20
Anthracene	ND	0.02	84	83	1.2				30 - 130	20
Benz(a)anthracene	ND	0.02	96	96	0.0				30 - 130	20
Benzo(a)pyrene	ND	0.02	89	87	2.3				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	97	96	1.0				30 - 130	20
Benzo(ghi)perylene	ND	0.02	77	81	5.1				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	95	93	2.1				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	99	102	3.0				30 - 130	20
Chrysene	ND	0.02	88	87	1.1				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	84	89	5.8				30 - 130	20
Dibenzofuran	ND	0.05	73	70	4.2				30 - 130	20
Fluoranthene	ND	0.02	90	86	4.5				30 - 130	20
Fluorene	ND	0.02	80	77	3.8				30 - 130	20
Hexachlorobenzene	ND	0.02	80	86	7.2				30 - 130	20
Hexachlorobutadiene	ND	0.05	43	46	6.7				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	28	27	3.6				30 - 130	20
Hexachloroethane	ND	0.05	36	41	13.0				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	83	87	4.7				30 - 130	20
Naphthalene	ND	0.02	48	51	6.1				30 - 130	20
Nitrobenzene	ND	0.05	55	58	5.3				30 - 130	20
Pentachloronitrobenzene	ND	0.10	87	94	7.7				30 - 130	20
Pentachlorophenol	ND	0.20	71	74	4.1				30 - 130	20
Phenanthrene	ND	0.02	78	78	0.0				30 - 130	20
Pyrene	ND	0.02	93	86	7.8				30 - 130	20
Pyridine	ND	0.50	35	40	13.3				30 - 130	20
% 2,4,6-Tribromophenol	81	%	85	90	5.7				15 - 110	20
% 2-Fluorobiphenyl	62	%	70	72	2.8				30 - 130	20
% 2-Fluorophenol	46	%	29	33	12.9				15 - 110	20
% Nitrobenzene-d5	59	%	50	56	11.3				30 - 130	20
% Phenol-d5	53	%	35	41	15.8				15 - 110	20
% Terphenyl-d14	98	%	95	88	7.7				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 407387 (ug/L), QC Sample No: BZ28477 (BZ28866)

### Semivolatiles - Water

1,2,4-Trichlorobenzene	ND	3.5	50	58	14.8				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	40	43	7.2				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6	84	82	2.4				30 - 130	20
1,3-Dichlorobenzene	ND	1.0	37	40	7.8				30 - 130	20

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
1,4-Dichlorobenzene	ND	1.0	39	42	7.4				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0	87	87	0.0				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0	79	80	1.3				30 - 130	20
2,4-Dichlorophenol	ND	1.0	64	74	14.5				30 - 130	20
2,4-Dimethylphenol	ND	1.0	70	78	10.8				30 - 130	20
2,4-Dinitrophenol	ND	1.0	141	138	2.2				30 - 130	20
2,4-Dinitrotoluene	ND	3.5	91	91	0.0				30 - 130	20
2,6-Dinitrotoluene	ND	3.5	87	87	0.0				30 - 130	20
2-Chloronaphthalene	ND	3.5	73	76	4.0				30 - 130	20
2-Chlorophenol	ND	1.0	41	45	9.3				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0	55	58	5.3				30 - 130	20
2-Nitroaniline	ND	3.5	121	120	0.8				30 - 130	20
2-Nitrophenol	ND	1.0	53	63	17.2				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0	60	64	6.5				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0	89	88	1.1				30 - 130	20
3-Nitroaniline	ND	5.0	103	99	4.0				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0	113	113	0.0				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5	86	84	2.4				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0	81	89	9.4				30 - 130	20
4-Chloroaniline	ND	3.5	73	80	9.2				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0	80	80	0.0				30 - 130	20
4-Nitroaniline	ND	5.0	88	89	1.1				30 - 130	20
4-Nitrophenol	ND	1.0	102	99	3.0				15 - 130	20
Acetophenone	ND	3.5	55	58	5.3				30 - 130	20
Aniline	ND	3.5	47	53	12.0				30 - 130	20
Benzidine	ND	4.5	102	91	11.4				30 - 130	20
Benzoic acid	ND	10	70	76	8.2				30 - 130	20
Benzyl butyl phthalate	ND	1.5	87	86	1.2				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	65	75	14.3				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	39	42	7.4				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	40	43	7.2				30 - 130	20
Carbazole	ND	5.0	93	92	1.1				30 - 130	20
Diethyl phthalate	ND	1.5	86	86	0.0				30 - 130	20
Dimethylphthalate	ND	1.5	84	84	0.0				30 - 130	20
Di-n-butylphthalate	ND	1.5	90	88	2.2				30 - 130	20
Di-n-octylphthalate	ND	1.5	91	90	1.1				30 - 130	20
Isophorone	ND	3.5	66	76	14.1				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	42	47	11.2				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	66	69	4.4				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	84	82	2.4				30 - 130	20
Phenol	ND	1.0	43	48	11.0				15 - 130	20
% 2,4,6-Tribromophenol	81	%	106	104	1.9				15 - 110	20
% 2-Fluorobiphenyl	65	%	75	78	3.9				30 - 130	20
% 2-Fluorophenol	42	%	29	33	12.9				15 - 110	20
% Nitrobenzene-d5	55	%	52	55	5.6				30 - 130	20
% Phenol-d5	51	%	41	46	11.5				15 - 110	20
% Terphenyl-d14	76	%	92	90	2.2				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 Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

QA/QC Batch 407585 (mg/Kg), QC Sample No: BZ28848 (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854)

### TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	74	93	22.8	84	71	16.8	60 - 120	30
% n-Pentacosane	72	%	86	78	9.8	73	66	10.1	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 407576 (ug/kg), QC Sample No: BZ28848 (BZ28848, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28859, BZ28860, BZ28861, BZ28862)

### Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	41	44	7.1	37	47	23.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	38	42	10.0	34	46	30.0	30 - 130	30	
1,2-Dichlorobenzene	ND	180	34	39	13.7	31	43	32.4	30 - 130	30	r
1,2-Diphenylhydrazine	ND	230	47	50	6.2	40	53	28.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	32	37	14.5	29	41	34.3	30 - 130	30	m,r
1,4-Dichlorobenzene	ND	230	35	40	13.3	32	44	31.6	30 - 130	30	r
2,4,5-Trichlorophenol	ND	230	44	47	6.6	38	48	23.3	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	43	44	2.3	37	47	23.8	30 - 130	30	
2,4-Dichlorophenol	ND	130	43	47	8.9	38	50	27.3	30 - 130	30	
2,4-Dimethylphenol	ND	230	44	49	10.8	41	52	23.7	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	33	22	40.0	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	46	49	6.3	38	49	25.3	30 - 130	30	
2,6-Dinitrotoluene	ND	130	44	48	8.7	37	51	31.8	30 - 130	30	r
2-Chloronaphthalene	ND	230	42	45	6.9	37	48	25.9	30 - 130	30	
2-Chlorophenol	ND	230	39	43	9.8	34	47	32.1	30 - 130	30	r
2-Methylnaphthalene	ND	230	39	44	12.0	37	47	23.8	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	43	48	11.0	40	51	24.2	30 - 130	30	
2-Nitroaniline	ND	330	66	67	1.5	54	71	27.2	30 - 130	30	
2-Nitrophenol	ND	230	40	44	9.5	35	47	29.3	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	44	47	6.6	37	49	27.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	48	53	9.9	42	54	25.0	30 - 130	30	
3-Nitroaniline	ND	330	53	59	10.7	45	59	26.9	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	45	35	25.0	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	43	48	11.0	36	49	30.6	30 - 130	30	r
4-Chloro-3-methylphenol	ND	230	47	52	10.1	43	54	22.7	30 - 130	30	
4-Chloroaniline	ND	230	49	55	11.5	42	55	26.8	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	43	46	6.7	36	48	28.6	30 - 130	30	
4-Nitroaniline	ND	230	47	51	8.2	40	52	26.1	30 - 130	30	
4-Nitrophenol	ND	230	47	46	2.2	41	53	25.5	30 - 130	30	
Acenaphthene	ND	230	47	51	8.2	41	52	23.7	30 - 130	30	
Acenaphthylene	ND	130	41	45	9.3	36	47	26.5	30 - 130	30	
Acetophenone	ND	230	39	44	12.0	34	48	34.1	30 - 130	30	r
Aniline	ND	330	39	42	7.4	32	43	29.3	30 - 130	30	
Anthracene	ND	230	45	49	8.5	37	49	27.9	30 - 130	30	
Benz(a)anthracene	ND	230	45	49	8.5	38	48	23.3	30 - 130	30	
Benzidine	ND	330	28	29	3.5	11	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	43	46	6.7	35	44	22.8	30 - 130	30	
Benzo(b)fluoranthene	ND	160	46	52	12.2	38	51	29.2	30 - 130	30	
Benzo(ghi)perylene	ND	230	48	54	11.8	26	30	14.3	30 - 130	30	m
Benzo(k)fluoranthene	ND	230	44	47	6.6	37	48	25.9	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	31	13	81.8	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	48	51	6.1	41	51	21.7	30 - 130	30	



QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bis(2-chloroethoxy)methane	ND	230	42	47	11.2	38	51	29.2	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	34	41	18.7	30	38	23.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	35	38	8.2	30	42	33.3	30 - 130	30	r
Bis(2-ethylhexyl)phthalate	ND	230	47	51	8.2	40	50	22.2	30 - 130	30	
Carbazole	ND	230	46	51	10.3	39	50	24.7	30 - 130	30	
Chrysene	ND	230	46	50	8.3	38	49	25.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	47	53	12.0	30	36	18.2	30 - 130	30	
Dibenzofuran	ND	230	43	47	8.9	38	49	25.3	30 - 130	30	
Diethyl phthalate	ND	230	45	47	4.3	38	48	23.3	30 - 130	30	
Dimethylphthalate	ND	230	44	47	6.6	37	50	29.9	30 - 130	30	
Di-n-butylphthalate	ND	670	49	53	7.8	38	50	27.3	30 - 130	30	
Di-n-octylphthalate	ND	230	49	52	5.9	39	49	22.7	30 - 130	30	
Fluoranthene	ND	230	45	48	6.5	35	45	25.0	30 - 130	30	
Fluorene	ND	230	46	49	6.3	40	51	24.2	30 - 130	30	
Hexachlorobenzene	ND	130	46	50	8.3	39	46	16.5	30 - 130	30	
Hexachlorobutadiene	ND	230	39	42	7.4	35	44	22.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	36	38	5.4	29	32	9.8	30 - 130	30	m
Hexachloroethane	ND	130	33	39	16.7	29	40	31.9	30 - 130	30	m,r
Indeno(1,2,3-cd)pyrene	ND	230	46	51	10.3	29	32	9.8	30 - 130	30	m
Isophorone	ND	130	41	44	7.1	35	47	29.3	30 - 130	30	
Naphthalene	ND	230	40	44	9.5	36	48	28.6	30 - 130	30	
Nitrobenzene	ND	130	40	45	11.8	35	48	31.3	30 - 130	30	r
N-Nitrosodimethylamine	ND	230	29	36	21.5	29	38	26.9	30 - 130	30	l,m
N-Nitrosodi-n-propylamine	ND	130	42	47	11.2	35	49	33.3	30 - 130	30	r
N-Nitrosodiphenylamine	ND	130	45	49	8.5	38	49	25.3	30 - 130	30	
Pentachloronitrobenzene	ND	230	44	49	10.8	37	48	25.9	30 - 130	30	
Pentachlorophenol	ND	230	25	20	22.2	44	44	0.0	30 - 130	30	l
Phenanthrene	ND	130	44	49	10.8	38	48	23.3	30 - 130	30	
Phenol	ND	230	47	51	8.2	40	54	29.8	30 - 130	30	
Pyrene	ND	230	46	49	6.3	36	45	22.2	30 - 130	30	
Pyridine	ND	230	21	25	17.4	21	24	13.3	30 - 130	30	l,m
% 2,4,6-Tribromophenol	51	%	51	54	5.7	43	58	29.7	30 - 130	30	
% 2-Fluorobiphenyl	44	%	43	45	4.5	37	49	27.9	30 - 130	30	
% 2-Fluorophenol	37	%	38	41	7.6	33	46	32.9	30 - 130	30	r
% Nitrobenzene-d5	41	%	41	44	7.1	36	50	32.6	30 - 130	30	r
% Phenol-d5	42	%	41	45	9.3	36	48	28.6	30 - 130	30	
% Terphenyl-d14	48	%	45	47	4.3	34	44	25.6	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 407584 (ug/Kg), QC Sample No: BZ28859 2X (BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	88	85	3.5	57	62	8.4	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	89	85	4.6	60	65	8.0	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
% DCBP (Surrogate Rec)	79	%	104	107	2.8	74	80	7.8	30 - 150	30
% TCMX (Surrogate Rec)	79	%	109	102	6.6	71	75	5.5	30 - 150	30

QA/QC Batch 407587 (mg/Kg), QC Sample No: BZ28859 (BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865)

### TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	85	102	18.2	80	90	11.8	60 - 120	30
% n-Pentacosane	72	%	70	88	22.8	66	68	3.0	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 407599 (ug/kg), QC Sample No: BZ28865 (BZ28848, BZ28850, BZ28851, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28867 (50X) )

### Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	107	108	0.9	92	97	5.3	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	103	104	1.0	96	99	3.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	104	106	1.9	89	103	14.6	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	106	107	0.9	95	99	4.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	97	97	0.0	93	95	2.1	70 - 130	30	
1,1-Dichloroethene	ND	5.0	97	98	1.0	88	90	2.2	70 - 130	30	
1,1-Dichloropropene	ND	5.0	104	105	1.0	94	96	2.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	110	110	0.0	47	47	0.0	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	96	98	2.1	84	98	15.4	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	107	108	0.9	48	50	4.1	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	104	106	1.9	76	87	13.5	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	107	109	1.9	79	92	15.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	106	107	0.9	88	92	4.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	103	105	1.9	67	74	9.9	70 - 130	30	m
1,2-Dichloroethane	ND	5.0	98	98	0.0	92	94	2.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	102	102	0.0	94	95	1.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	104	107	2.8	77	91	16.7	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	104	105	1.0	69	76	9.7	70 - 130	30	m
1,3-Dichloropropane	ND	5.0	101	102	1.0	88	93	5.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	101	102	1.0	66	73	10.1	70 - 130	30	m
2,2-Dichloropropane	ND	5.0	107	108	0.9	92	94	2.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	105	106	0.9	77	90	15.6	70 - 130	30	
2-Hexanone	ND	25	89	90	1.1	77	84	8.7	70 - 130	30	
2-Isopropyltoluene	ND	5.0	97	100	3.0	67	80	17.7	70 - 130	30	m
4-Chlorotoluene	ND	5.0	102	103	1.0	73	84	14.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	92	93	1.1	86	92	6.7	70 - 130	30	
Acetone	ND	10	57	58	1.7	33	37	11.4	70 - 130	30	l,m
Acrylonitrile	ND	5.0	89	90	1.1	83	88	5.8	70 - 130	30	
Benzene	ND	1.0	104	106	1.9	96	98	2.1	70 - 130	30	
Bromobenzene	ND	5.0	107	108	0.9	79	88	10.8	70 - 130	30	
Bromochloromethane	ND	5.0	105	105	0.0	97	100	3.0	70 - 130	30	
Bromodichloromethane	ND	5.0	105	106	0.9	95	98	3.1	70 - 130	30	
Bromoform	ND	5.0	108	108	0.0	88	92	4.4	70 - 130	30	
Bromomethane	ND	5.0	75	76	1.3	66	67	1.5	70 - 130	30	m
Carbon Disulfide	ND	5.0	90	92	2.2	79	81	2.5	70 - 130	30	
Carbon tetrachloride	ND	5.0	103	104	1.0	94	98	4.2	70 - 130	30	
Chlorobenzene	ND	5.0	102	103	1.0	83	85	2.4	70 - 130	30	
Chloroethane	ND	5.0	77	78	1.3	69	71	2.9	70 - 130	30	m
Chloroform	ND	5.0	99	100	1.0	95	96	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
Chloromethane	ND	5.0	69	69	0.0	65	66	1.5	70 - 130	30	l,m
cis-1,2-Dichloroethene	ND	5.0	103	105	1.9	96	97	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	110	112	1.8	90	92	2.2	70 - 130	30	
Dibromochloromethane	ND	3.0	111	113	1.8	96	100	4.1	70 - 130	30	
Dibromomethane	ND	5.0	101	101	0.0	90	94	4.3	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	61	62	1.6	55	55	0.0	70 - 130	30	l,m
Ethylbenzene	ND	1.0	105	107	1.9	88	93	5.5	70 - 130	30	
Hexachlorobutadiene	ND	5.0	111	116	4.4	44	55	22.2	70 - 130	30	m
Isopropylbenzene	ND	1.0	109	111	1.8	85	100	16.2	70 - 130	30	
m&p-Xylene	ND	2.0	105	107	1.9	87	91	4.5	70 - 130	30	
Methyl ethyl ketone	ND	5.0	88	88	0.0	81	87	7.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	84	84	0.0	77	80	3.8	70 - 130	30	
Methylene chloride	ND	5.0	86	87	1.2	89	91	2.2	70 - 130	30	
Naphthalene	ND	5.0	123	124	0.8	61	58	5.0	70 - 130	30	m
n-Butylbenzene	ND	1.0	101	104	2.9	62	76	20.3	70 - 130	30	m
n-Propylbenzene	ND	1.0	104	106	1.9	77	93	18.8	70 - 130	30	
o-Xylene	ND	2.0	111	113	1.8	90	94	4.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	106	109	2.8	72	87	18.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	109	112	2.7	74	90	19.5	70 - 130	30	
Styrene	ND	5.0	108	109	0.9	83	84	1.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	108	110	1.8	78	94	18.6	70 - 130	30	
Tetrachloroethene	ND	5.0	109	110	0.9	91	95	4.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	87	87	0.0	83	89	7.0	70 - 130	30	
Toluene	ND	1.0	106	107	0.9	93	95	2.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	98	100	2.0	88	90	2.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	104	106	1.9	85	87	2.3	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	98	100	2.0	71	81	13.2	70 - 130	30	
Trichloroethene	ND	5.0	108	108	0.0	96	97	1.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	71	72	1.4	69	71	2.9	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	87	89	2.3	79	83	4.9	70 - 130	30	
Vinyl chloride	ND	5.0	71	72	1.4	65	67	3.0	70 - 130	30	m
% 1,2-dichlorobenzene-d4	102	%	100	100	0.0	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	99	99	0.0	98	95	3.1	70 - 130	30	
% Dibromofluoromethane	98	%	100	98	2.0	100	101	1.0	70 - 130	30	
% Toluene-d8	99	%	101	101	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 407583 (ug/Kg), QC Sample No: BZ29284 2X (BZ28865)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	86	84	2.4	83	73	12.8	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	91	94	3.2	90	84	6.9	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	86	%	107	110	2.8	102	92	10.3	30 - 150	30	
% TCMX (Surrogate Rec)	78	%	91	86	5.6	88	78	12.0	30 - 150	30	

Comment:

Antimony LCS recovery was below acceptance criteria, MS was within criteria.

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
QA/QC Batch 407577 (ug/kg), QC Sample No: BZ29284 (BZ28863, BZ28864, BZ28865)											
<b>Semivolatiles - Soil</b>											
1,2,4,5-Tetrachlorobenzene	ND	230	53	50	5.8	48	49	2.1	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	50	47	6.2	47	49	4.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	49	44	10.8	46	46	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	56	54	3.6	54	51	5.7	30 - 130	30	
1,3-Dichlorobenzene	ND	230	46	41	11.5	43	44	2.3	30 - 130	30	
1,4-Dichlorobenzene	ND	230	49	44	10.8	45	46	2.2	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	55	52	5.6	51	49	4.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	53	51	3.8	50	49	2.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	53	52	1.9	50	50	0.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	56	55	1.8	53	52	1.9	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	26	29	10.9	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	56	54	3.6	53	49	7.8	30 - 130	30	
2,6-Dinitrotoluene	ND	130	58	57	1.7	55	51	7.5	30 - 130	30	
2-Chloronaphthalene	ND	230	59	57	3.4	52	54	3.8	30 - 130	30	
2-Chlorophenol	ND	230	52	48	8.0	46	47	2.2	30 - 130	30	
2-Methylnaphthalene	ND	230	52	50	3.9	49	50	2.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	58	55	5.3	53	54	1.9	30 - 130	30	
2-Nitroaniline	ND	330	81	75	7.7	74	65	12.9	30 - 130	30	
2-Nitrophenol	ND	230	52	50	3.9	50	51	2.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	58	57	1.7	52	51	1.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	62	61	1.6	60	62	3.3	30 - 130	30	
3-Nitroaniline	ND	330	66	64	3.1	59	55	7.0	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	42	42	0.0	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	57	56	1.8	53	51	3.8	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	56	55	1.8	54	50	7.7	30 - 130	30	
4-Chloroaniline	ND	230	59	57	3.4	54	52	3.8	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	61	60	1.7	56	54	3.6	30 - 130	30	
4-Nitroaniline	ND	230	62	59	5.0	56	53	5.5	30 - 130	30	
4-Nitrophenol	ND	230	57	52	9.2	51	47	8.2	30 - 130	30	
Acenaphthene	ND	230	63	61	3.2	58	57	1.7	30 - 130	30	
Acenaphthylene	ND	130	57	54	5.4	52	51	1.9	30 - 130	30	
Acetophenone	ND	230	53	50	5.8	48	49	2.1	30 - 130	30	
Aniline	ND	330	52	48	8.0	44	43	2.3	30 - 130	30	
Anthracene	ND	230	59	57	3.4	55	53	3.7	30 - 130	30	
Benz(a)anthracene	ND	230	60	57	5.1	54	53	1.9	30 - 130	30	
Benzidine	ND	330	35	33	5.9	23	25	8.3	30 - 130	30	m
Benzo(a)pyrene	ND	130	57	55	3.6	51	49	4.0	30 - 130	30	
Benzo(b)fluoranthene	ND	160	60	59	1.7	53	52	1.9	30 - 130	30	
Benzo(ghi)perylene	ND	230	52	49	5.9	48	47	2.1	30 - 130	30	
Benzo(k)fluoranthene	ND	230	58	56	3.5	52	50	3.9	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	24	26	8.0	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	58	56	3.5	52	51	1.9	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	54	53	1.9	52	52	0.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	42	38	10.0	45	45	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	45	42	6.9	43	44	2.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	59	57	3.4	54	53	1.9	30 - 130	30	
Carbazole	ND	230	61	58	5.0	55	54	1.8	30 - 130	30	
Chrysene	ND	230	60	58	3.4	55	53	3.7	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	56	53	5.5	51	51	0.0	30 - 130	30	
Dibenzofuran	ND	230	59	57	3.4	54	53	1.9	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Diethyl phthalate	ND	230	59	55	7.0	53	49	7.8	30 - 130	30
Dimethylphthalate	ND	230	58	55	5.3	52	49	5.9	30 - 130	30
Di-n-butylphthalate	ND	670	63	59	6.6	53	53	0.0	30 - 130	30
Di-n-octylphthalate	ND	230	61	60	1.7	56	55	1.8	30 - 130	30
Fluoranthene	ND	230	62	56	10.2	55	54	1.8	30 - 130	30
Fluorene	ND	230	63	62	1.6	58	57	1.7	30 - 130	30
Hexachlorobenzene	ND	130	62	59	5.0	58	56	3.5	30 - 130	30
Hexachlorobutadiene	ND	230	50	46	8.3	47	47	0.0	30 - 130	30
Hexachlorocyclopentadiene	ND	230	45	43	4.5	40	38	5.1	30 - 130	30
Hexachloroethane	ND	130	46	41	11.5	42	42	0.0	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	54	51	5.7	50	49	2.0	30 - 130	30
Isophorone	ND	130	50	48	4.1	47	47	0.0	30 - 130	30
Naphthalene	ND	230	54	51	5.7	52	54	3.8	30 - 130	30
Nitrobenzene	ND	130	54	51	5.7	51	52	1.9	30 - 130	30
N-Nitrosodimethylamine	ND	230	49	43	13.0	50	51	2.0	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	54	51	5.7	51	52	1.9	30 - 130	30
N-Nitrosodiphenylamine	ND	130	59	56	5.2	52	49	5.9	30 - 130	30
Pentachloronitrobenzene	ND	230	58	55	5.3	54	52	3.8	30 - 130	30
Pentachlorophenol	ND	230	25	23	8.3	58	52	10.9	30 - 130	30
Phenanthrene	ND	130	59	57	3.4	56	53	5.5	30 - 130	30
Phenol	ND	230	55	53	3.7	51	51	0.0	30 - 130	30
Pyrene	ND	230	61	57	6.8	54	54	0.0	30 - 130	30
Pyridine	ND	230	37	33	11.4	40	41	2.5	30 - 130	30
% 2,4,6-Tribromophenol	56	%	60	56	6.9	57	57	0.0	30 - 130	30
% 2-Fluorobiphenyl	55	%	57	55	3.6	52	54	3.8	30 - 130	30
% 2-Fluorophenol	39	%	50	46	8.3	47	48	2.1	30 - 130	30
% Nitrobenzene-d5	46	%	51	48	6.1	49	51	4.0	30 - 130	30
% Phenol-d5	46	%	57	54	5.4	51	51	0.0	30 - 130	30
% Terphenyl-d14	58	%	61	57	6.8	54	54	0.0	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 407953 (ug/kg), QC Sample No: BZ29434 (BZ28849 (50X) )

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	96	95	1.0	91	91	0.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	96	96	0.0	92	91	1.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	101	97	4.0	94	92	2.2	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	98	95	3.1	93	91	2.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	96	95	1.0	93	91	2.2	70 - 130	30
1,1-Dichloroethene	ND	5.0	100	99	1.0	83	83	0.0	70 - 130	30
1,1-Dichloropropene	ND	5.0	102	99	3.0	100	99	1.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	106	102	3.8	98	97	1.0	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	97	91	6.4	90	87	3.4	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	108	102	5.7	96	97	1.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	98	96	2.1	94	94	0.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	99	91	8.4	85	82	3.6	70 - 130	30
1,2-Dibromoethane	ND	5.0	98	94	4.2	91	90	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	99	97	2.0	96	96	0.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	98	95	3.1	94	92	2.2	70 - 130	30
1,2-Dichloropropane	ND	5.0	97	95	2.1	94	93	1.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	97	3.0	96	95	1.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	101	98	3.0	96	96	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3-Dichloropropane	ND	5.0	96	93	3.2	92	90	2.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	101	97	4.0	94	95	1.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	98	98	0.0	84	87	3.5	70 - 130	30	
2-Chlorotoluene	ND	5.0	100	97	3.0	96	96	0.0	70 - 130	30	
2-Hexanone	ND	25	91	85	6.8	79	74	6.5	70 - 130	30	
2-Isopropyltoluene	ND	5.0	105	103	1.9	102	101	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	100	98	2.0	95	95	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	97	89	8.6	85	81	4.8	70 - 130	30	
Acetone	ND	10	82	77	6.3	66	62	6.3	70 - 130	30	m
Acrylonitrile	ND	5.0	97	90	7.5	87	83	4.7	70 - 130	30	
Benzene	ND	1.0	97	96	1.0	96	94	2.1	70 - 130	30	
Bromobenzene	ND	5.0	100	97	3.0	96	95	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	100	98	2.0	95	93	2.1	70 - 130	30	
Bromodichloromethane	ND	5.0	94	93	1.1	89	88	1.1	70 - 130	30	
Bromoform	ND	5.0	95	90	5.4	82	79	3.7	70 - 130	30	
Bromomethane	ND	5.0	83	83	0.0	57	56	1.8	70 - 130	30	m
Carbon Disulfide	ND	5.0	112	112	0.0	91	91	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	97	96	1.0	90	87	3.4	70 - 130	30	
Chlorobenzene	ND	5.0	98	97	1.0	96	95	1.0	70 - 130	30	
Chloroethane	ND	5.0	85	87	2.3	24	24	0.0	70 - 130	30	m
Chloroform	ND	5.0	94	94	0.0	91	90	1.1	70 - 130	30	
Chloromethane	ND	5.0	82	81	1.2	78	76	2.6	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	96	96	0.0	93	92	1.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	98	95	3.1	88	88	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	98	96	2.1	90	89	1.1	70 - 130	30	
Dibromomethane	ND	5.0	97	92	5.3	91	89	2.2	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	87	85	2.3	81	80	1.2	70 - 130	30	
Ethylbenzene	ND	1.0	99	97	2.0	97	96	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	105	3.7	106	105	0.9	70 - 130	30	
Isopropylbenzene	ND	1.0	100	98	2.0	98	97	1.0	70 - 130	30	
m&p-Xylene	ND	2.0	99	97	2.0	98	97	1.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	95	86	9.9	81	78	3.8	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	104	102	1.9	97	95	2.1	70 - 130	30	
Methylene chloride	ND	5.0	84	85	1.2	81	81	0.0	70 - 130	30	
Naphthalene	ND	5.0	109	102	6.6	95	94	1.1	70 - 130	30	
n-Butylbenzene	ND	1.0	105	100	4.9	98	98	0.0	70 - 130	30	
n-Propylbenzene	ND	1.0	103	100	3.0	98	97	1.0	70 - 130	30	
o-Xylene	ND	2.0	101	98	3.0	98	97	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	103	100	3.0	98	98	0.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	103	1.9	102	101	1.0	70 - 130	30	
Styrene	ND	5.0	100	98	2.0	96	96	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	100	99	1.0	98	97	1.0	70 - 130	30	
Tetrachloroethene	ND	5.0	105	101	3.9	103	101	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	98	92	6.3	84	82	2.4	70 - 130	30	
Toluene	ND	1.0	100	98	2.0	98	96	2.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	96	96	0.0	92	91	1.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	95	92	3.2	85	83	2.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	102	95	7.1	82	79	3.7	70 - 130	30	
Trichloroethene	ND	5.0	102	99	3.0	95	93	2.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	87	86	1.2	24	22	8.7	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	107	104	2.8	95	93	2.1	70 - 130	30	
Vinyl chloride	ND	5.0	85	86	1.2	93	90	3.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	101	101	0.0	100	100	0.0	70 - 130	30	

## QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
% Bromofluorobenzene	98	%	99	99	0.0	99	98	1.0	70 - 130	30
% Dibromofluoromethane	101	%	101	102	1.0	98	100	2.0	70 - 130	30
% Toluene-d8	99	%	100	100	0.0	101	101	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 407730 (ug/kg), QC Sample No: BZ29648 (BZ28849, BZ28850, BZ28858)

### Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	60	59	1.7	57			30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	56	58	3.5	56			30 - 130	30	
1,2-Dichlorobenzene	ND	180	52	52	0.0	50			30 - 130	30	
1,2-Diphenylhydrazine	ND	230	70	70	0.0	64			30 - 130	30	
1,3-Dichlorobenzene	ND	230	50	50	0.0	47			30 - 130	30	
1,4-Dichlorobenzene	ND	230	53	53	0.0	50			30 - 130	30	
2,4,5-Trichlorophenol	ND	230	65	67	3.0	57			30 - 130	30	
2,4,6-Trichlorophenol	ND	130	63	64	1.6	55			30 - 130	30	
2,4-Dichlorophenol	ND	130	62	64	3.2	58			30 - 130	30	
2,4-Dimethylphenol	ND	230	65	68	4.5	63			30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	28			30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	66	66	0.0	58			30 - 130	30	
2,6-Dinitrotoluene	ND	130	63	65	3.1	59			30 - 130	30	
2-Chloronaphthalene	ND	230	64	65	1.6	61			30 - 130	30	
2-Chlorophenol	ND	230	58	59	1.7	55			30 - 130	30	
2-Methylnaphthalene	ND	230	58	60	3.4	57			30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	65	67	3.0	62			30 - 130	30	
2-Nitroaniline	ND	330	91	91	0.0	81			30 - 130	30	
2-Nitrophenol	ND	230	59	58	1.7	56			30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	64	67	4.6	60			30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	71	78	9.4	71			30 - 130	30	
3-Nitroaniline	ND	330	77	78	1.3	70			30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	44			30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	65	68	4.5	61			30 - 130	30	
4-Chloro-3-methylphenol	ND	230	68	70	2.9	63			30 - 130	30	
4-Chloroaniline	ND	230	67	71	5.8	63			30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	62	64	3.2	56			30 - 130	30	
4-Nitroaniline	ND	230	70	73	4.2	64			30 - 130	30	
4-Nitrophenol	ND	230	69	70	1.4	63			30 - 130	30	
Acenaphthene	ND	230	70	73	4.2	65			30 - 130	30	
Acenaphthylene	ND	130	62	64	3.2	58			30 - 130	30	
Acetophenone	ND	230	57	58	1.7	54			30 - 130	30	
Aniline	ND	330	55	56	1.8	51			30 - 130	30	
Anthracene	ND	230	66	69	4.4	59			30 - 130	30	
Benz(a)anthracene	ND	230	65	71	8.8	57			30 - 130	30	
Benzidine	ND	330	34	37	8.5	24			30 - 130	30	m
Benzo(a)pyrene	ND	130	62	67	7.8	52			30 - 130	30	
Benzo(b)fluoranthene	ND	160	68	73	7.1	61			30 - 130	30	
Benzo(ghi)perylene	ND	230	72	74	2.7	46			30 - 130	30	
Benzo(k)fluoranthene	ND	230	63	66	4.7	55			30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	26			30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	69	75	8.3	60			30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	62	63	1.6	58			30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	52	52	0.0	48			30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	53	53	0.0	48			30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28848

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Bis(2-ethylhexyl)phthalate	ND	230	70	74	5.6	63			30 - 130	30
Carbazole	ND	230	67	71	5.8	63			30 - 130	30
Chrysene	ND	230	67	72	7.2	59			30 - 130	30
Dibenz(a,h)anthracene	ND	130	69	74	7.0	52			30 - 130	30
Dibenzofuran	ND	230	65	67	3.0	62			30 - 130	30
Diethyl phthalate	ND	230	64	65	1.6	57			30 - 130	30
Dimethylphthalate	ND	230	66	67	1.5	59			30 - 130	30
Di-n-butylphthalate	ND	670	71	76	6.8	59			30 - 130	30
Di-n-octylphthalate	ND	230	72	77	6.7	60			30 - 130	30
Fluoranthene	ND	230	64	69	7.5	48			30 - 130	30
Fluorene	ND	230	67	70	4.4	62			30 - 130	30
Hexachlorobenzene	ND	130	71	74	4.1	68			30 - 130	30
Hexachlorobutadiene	ND	230	56	56	0.0	54			30 - 130	30
Hexachlorocyclopentadiene	ND	230	50	49	2.0	16			30 - 130	30 m
Hexachloroethane	ND	130	50	50	0.0	45			30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	70	73	4.2	47			30 - 130	30
Isophorone	ND	130	57	60	5.1	54			30 - 130	30
Naphthalene	ND	230	59	61	3.3	60			30 - 130	30
Nitrobenzene	ND	130	60	60	0.0	57			30 - 130	30
N-Nitrosodimethylamine	ND	230	50	51	2.0	44			30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	62	63	1.6	59			30 - 130	30
N-Nitrosodiphenylamine	ND	130	64	67	4.6	60			30 - 130	30
Pentachloronitrobenzene	ND	230	68	71	4.3	61			30 - 130	30
Pentachlorophenol	ND	230	43	37	15.0	62			30 - 130	30
Phenanthrene	ND	130	66	70	5.9	48			30 - 130	30
Phenol	ND	230	70	73	4.2	66			30 - 130	30
Pyrene	ND	230	66	71	7.3	51			30 - 130	30
Pyridine	ND	230	37	37	0.0	37			30 - 130	30
% 2,4,6-Tribromophenol	74	%	80	82	2.5	74			30 - 130	30
% 2-Fluorobiphenyl	62	%	64	67	4.6	61			30 - 130	30
% 2-Fluorophenol	54	%	59	57	3.4	54			30 - 130	30
% Nitrobenzene-d5	60	%	59	60	1.7	58			30 - 130	30
% Phenol-d5	60	%	64	65	1.6	59			30 - 130	30
% Terphenyl-d14	71	%	63	68	7.6	54			30 - 130	30

Comment:


MSD not reported for this batch.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

- 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  
 November 03, 2017



Friday, November 03, 2017

Criteria: None

State: CT

## Sample Criteria Exceedances Report

GBZ28848 - TRC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance 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:** TRC Environmental Corp.

**Project Location:** CONN DOT MERRITT 7 RR STATION      **Project Number:**

**Laboratory Sample ID(s):** BZ28848-BZ28867      **Sampling Date(s):** 10/27/2017

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

<b>1</b>	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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1A</b>	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1B</b>	<u><i>VPH and EPH methods only:</i></u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<b>2</b>	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>3</b>	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<b>4</b>	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: PCB Narration, SVOA Narration, SVOASIM Narration, VOA Narration.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>5</b>	a) Were reporting limits specified or referenced on the chain-of-custody?  b) Were these reporting limits met?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>6</b>	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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>7</b>	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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:** Friday, November 03, 2017

**Name of Laboratory** Phoenix Environmental Labs, Inc.

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



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## RCP Certification Report

November 03, 2017

SDG I.D.: GBZ28848

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### 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.

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### ETPH Narration

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

#### Instrument:

**AU-FID1 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28855, BZ28856, BZ28858, BZ28864

The initial calibration (ETPHO18I) 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 10/31/17-1** Jeff Bucko, Chemist 10/31/17

BZ28850, BZ28852

The initial calibration (ETPHO26I) 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 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28848, BZ28849, BZ28854, BZ28861

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None. The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

**AU-FID21 10/31/17-1** Jeff Bucko, Chemist 10/31/17

BZ28853

The initial calibration (ETPHO01I) RSD for the compound list was less than 30% except for the following compounds: None. The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

**AU-FID21 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28865

The initial calibration (ETPHO01I) 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-FID84 10/30/17-1** Jeff Bucko, Chemist 10/30/17

BZ28866

The initial calibration (ETPHO02I) 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: BZ28866

Preceding CC O30A007 - None.

Succeeding CC O30A019 - Pentacosane 39%H (30%)

**AU-FID84 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28860, BZ28862

The initial calibration (ETPHO02I) 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-XL1 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28857, BZ28859

The initial calibration (ETPHO01I) RSD for the compound list was less than 30% except for the following compounds: None.

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### ***ETPH Narration***

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

**AU-XL2 11/01/17-1** Jeff Bucko, Chemist 11/01/17

BZ28863

The initial calibration (ETPHO23I) 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 407391 (BZ28397)**

BZ28866

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.

### **QC (Site Specific):**

#### **Batch 407585 (BZ28848)**

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854

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.

#### **Batch 407587 (BZ28859)**

BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865

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.

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### ***Mercury Narration***

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

### **Instrument:**

**MERLIN 10/30/17 08:53** Rick Schweitzer, Chemist 10/30/17

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865



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## Certification Report

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### **Mercury Narration**

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.

**MERLIN 10/31/17 08:10** Rick Schweitzer, Chemist 10/31/17

BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28866

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 407513 (BZ28639)**

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857

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

**Batch 407515 (BZ28754)**

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857

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

**Batch 407516 (BZ28524)**

BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28866

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

### **QC (Site Specific):**

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## Certification Report

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### Mercury Narration

#### **Batch 407514 (BZ28858)**

BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865

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%.

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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### ICP Metals Narration

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

#### **Instrument:**

#### **ARCOS 10/31/17 12:08**

Mike Arsenault, Chemist 10/31/17

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865

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 10/30/17 08:56**

Emily Kolominskaya, Mike Arsenault, Chemist 10/30/17

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28866

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 407492 (BZ27673)**

BZ28866

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

#### **Batch 407518 (BZ28624)**

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865



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### ICP Metals Narration

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

#### QC (Site Specific):

##### Batch 407573 (BZ28849)

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865

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? No.

**QC Batch 407395 (Samples: BZ28866): -----**

**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. (PCB-1016, PCB-1260)**

**The LCS/LCSD RPD exceeds the method criteria for one or more surrogates. Both recoveries are within limits. No significant bias is suspected. (% TCMX (Surrogate Rec))**

#### Instrument:

##### AU-ECD29 10/30/17-1

Adam Werner, Chemist 10/30/17

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865

The initial calibration (PC1018AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC1018BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

##### AU-ECD8 10/31/17-1

Adam Werner, Chemist 10/31/17

BZ28866

The initial calibration (PC1024AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC1024BI) 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 407395 (BZ28477)

BZ28866

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: % TCMX (Surrogate Rec)(22.0%), PCB-1016(23.4%), PCB-1260(22.2%)

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

##### Batch 407583 (BZ29284)

BZ28865

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



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## RCP Certification Report

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### **PCB Narration**

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.  
Antimony LCS recovery was below acceptance criteria, MS was within criteria.

### **QC (Site Specific):**

#### **Batch 407584 (BZ28859)**

BZ28848, BZ28849, BZ28850, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864

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

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### **SVOA Narration**





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## RCP Certification Report

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SDG I.D.: GBZ28848

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### SVOA Narration

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

**QC Batch 407387 (Samples: BZ28866): -----**

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (2,4-Dinitrophenol)

**QC Batch 407576 (Samples: BZ28848, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28859, BZ28860, BZ28861, BZ28862): -----**

Several QC recoveries for one or more analytes are below the method criteria. A low bias for these analytes is likely. (2,4-Dinitrophenol, Benzoic Acid, N-Nitrosodimethylamine)

One or more analytes is below the method criteria. A low bias for these analytes is possible. (4,6-Dinitro-2-methylphenol, Pentachlorophenol)

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (1,3-Dichlorobenzene, Benzo(ghi)perylene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno(1,2,3-cd)pyrene)

The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4-Dinitrophenol, 2,6-Dinitrotoluene, 2-Chlorophenol, 4-Bromophenyl phenyl ether, Acetophenone, Benzoic Acid, Bis(2-chloroisopropyl)ether, Hexachloroethane, Nitrobenzene, N-Nitrosodi-n-propylamine)

The MS/MSD RPD exceeds the method criteria for one or more surrogates. All recoveries are within limits. No significant bias is suspected. (% 2-Fluorophenol, % Nitrobenzene-d5)

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

**QC Batch 407577 (Samples: BZ28863, BZ28864, BZ28865): -----**

One or more analytes is below the method criteria. A low bias for these analytes is possible. (4,6-Dinitro-2-methylphenol, Pentachlorophenol)

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol, Benzoic Acid)

**QC Batch 407730 (Samples: BZ28849, BZ28850, BZ28858): -----**

One or more analytes is below the method criteria. A low bias for these analytes is possible. (2,4-Dinitrophenol, Benzoic Acid, 4,6-Dinitro-2-methylphenol)

#### Instrument:

**CHEM19 11/01/17-1**

Damien Drobinski, Chemist 11/01/17

BZ28849, BZ28866

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



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### **SVOA Narration**

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Initial Calibration Verification (CHEM19/SPLIT\_1023):

94% of target compounds met criteria.

The following compounds had %RSDs >20%: 2,4-Dinitrophenol 57% (20%), 4,6-Dinitro-2-methylphenol 22% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1)

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

Continuing Calibration Verification (CHEM19/1101\_02-SPLIT\_1023):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

97% of target compounds met criteria.

The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 34%H (30%), 4-Nitrophenol 34%L (30%)

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1)

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

#### **CHEM27 10/30/17-1**

Damien Drobinski, Chemist 10/30/17

BZ28848, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28859, BZ28860, BZ28861, BZ28862

Initial Calibration Verification (CHEM27/SPLIT\_1020):

95% of target compounds met criteria.

The following compounds had %RSDs >20%: 2-Nitrophenol 27% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1), Bis(2-chloroethoxy)methane 0.286 (0.3), Hexachlorobenzene 0.091 (0.1)

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

Continuing Calibration Verification (CHEM27/1030\_04-SPLIT\_1020):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.085 (0.1), Bis(2-chloroethoxy)methane 0.252 (0.3), Hexachlorobenzene 0.081 (0.1)

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

#### **CHEM27 10/31/17-1**

Damien Drobinski, Chemist 10/31/17

BZ28849, BZ28850, BZ28858

Initial Calibration Verification (CHEM27/SPLIT\_1020):

95% of target compounds met criteria.

The following compounds had %RSDs >20%: 2-Nitrophenol 27% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1), Bis(2-chloroethoxy)methane 0.286 (0.3), Hexachlorobenzene 0.091 (0.1)

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

Continuing Calibration Verification (CHEM27/1031\_04-SPLIT\_1020):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.092 (0.1), Bis(2-chloroethoxy)methane 0.262 (0.3), Hexachlorobenzene 0.085 (0.1)

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

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## RCP Certification Report

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SDG I.D.: GBZ28848

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### SVOA Narration

#### CHEM29 10/30/17-1

Damien Drobinski, Chemist 10/30/17

BZ28863, BZ28864, BZ28865

Initial Calibration Verification (CHEM29/SPLIT\_1030):

97% of target compounds met criteria.

The following compounds had %RSDs >20%: 2-Nitrophenol 23% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.099 (0.1)

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

Continuing Calibration Verification (CHEM29/1030\_20-SPLIT\_1030):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.092 (0.1)

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

### QC (Batch Specific):

#### Batch 407387 (BZ28477)

BZ28866

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(141%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(138%)

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%)

#### Batch 407577 (BZ29284)

BZ28863, BZ28864, BZ28865

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(25%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(23%)

All LCS/LCSD RPDs were less than 30% 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%)

#### Batch 407730 (BZ29648)

BZ28849, BZ28850, BZ28858

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

MSD not reported for this batch.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

### QC (Site Specific):

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## RCP Certification Report

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SDG I.D.: GBZ28848

### SVOA Narration

#### **Batch 407576 (BZ28848)**

BZ28848, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28859, BZ28860, BZ28861, BZ28862

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(28%), Benzoic Acid(<10%), N-Nitrosodimethylamine(29%), Pentachlorophenol(25%), Pyridine(21%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(29%), Benzoic Acid(<10%), Pentachlorophenol(20%), Pyridine(25%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 30 - 130 with the following exceptions: 1,3-Dichlorobenzene(29%), Benzidine(11%), Benzo(ghi)perylene(26%), Hexachlorocyclopentadiene(29%), Hexachloroethane(29%), Indeno(1,2,3-cd)pyrene(29%), N-Nitrosodimethylamine(29%), Pyridine(21%)

All MSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(22%), Benzidine(<10%), Benzoic Acid(13%), Pyridine(24%)

All MS/MSD RPDs were less than 30% with the following exceptions: % 2-Fluorophenol(32.9%), % Nitrobenzene-d5(32.6%), 1,2-Dichlorobenzene(32.4%), 1,3-Dichlorobenzene(34.3%), 1,4-Dichlorobenzene(31.6%), 2,4-Dinitrophenol(40.0%), 2,6-Dinitrotoluene(31.8%), 2-Chlorophenol(32.1%), 4-Bromophenyl phenyl ether(30.6%), Acetophenone(34.1%), Benzoic Acid(81.8%), Bis(2-chloroisopropyl)ether(33.3%), Hexachloroethane(31.9%), Nitrobenzene(31.3%), N-Nitrosodi-n-propylamine(33.3%)

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%)

### SVOASIM Narration

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

**QC Batch 407387 (Samples: BZ28866): -----**

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

#### **Instrument:**

##### **CHEM07 10/31/17-1**

Damien Drobinski, Chemist 10/31/17

BZ28866

Initial Calibration Verification (CHEM07/SIM\_1025):

96% 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 (CHEM07/1031\_02-SIM\_1025):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

98% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

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

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



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## RCP Certification Report

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SDG I.D.: GBZ28848

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### SVOASIM Narration

#### QC (Batch Specific):

##### Batch 407387 (BZ28477)

BZ28866

All LCS recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(28%)

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

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%)

#### QC (Site Specific):

##### Batch 407576 (BZ28848)

BZ28848, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28859, BZ28860, BZ28861, BZ28862

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(28%), Benzoic Acid(<10%), N-Nitrosodimethylamine(29%), Pentachlorophenol(25%), Pyridine(21%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(29%), Benzoic Acid(<10%), Pentachlorophenol(20%), Pyridine(25%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 30 - 130 with the following exceptions: 1,3-Dichlorobenzene(29%), Benzidine(11%), Benzo(ghi)perylene(26%), Hexachlorocyclopentadiene(29%), Hexachloroethane(29%), Indeno(1,2,3-cd)pyrene(29%), N-Nitrosodimethylamine(29%), Pyridine(21%)

All MSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(22%), Benzidine(<10%), Benzoic Acid(13%), Pyridine(24%)

All MS/MSD RPDs were less than 30% with the following exceptions: % 2-Fluorophenol(32.9%), % Nitrobenzene-d5(32.6%), 1,2-Dichlorobenzene(32.4%), 1,3-Dichlorobenzene(34.3%), 1,4-Dichlorobenzene(31.6%), 2,4-Dinitrophenol(40.0%), 2,6-Dinitrotoluene(31.8%), 2-Chlorophenol(32.1%), 4-Bromophenyl phenyl ether(30.6%), Acetophenone(34.1%), Benzoic Acid(81.8%), Bis(2-chloroisopropyl)ether(33.3%), Hexachloroethane(31.9%), Nitrobenzene(31.3%), N-Nitrosodi-n-propylamine(33.3%)

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%)

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### VOA Narration



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## RCP Certification Report

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SDG I.D.: GBZ28848

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### VOA Narration

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

**QC Batch 407562 (Samples: BZ28866): -----**

**The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Tetrahydrofuran (THF))**

**QC Batch 407599 (Samples: BZ28848, BZ28850, BZ28851, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28867): -----**

**The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Isopropyltoluene, Bromomethane, Chloroethane, Hexachlorobutadiene, Naphthalene, n-Butylbenzene, Trichlorofluoromethane, Vinyl chloride)**

**The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Acetone, Chloromethane, Dichlorodifluoromethane)**

### Instrument:

#### CHEM17 10/27/17-2

Michael Hahn, Chemist 10/27/17

BZ28866

Initial Calibration Verification (CHEM17/VT-S1025):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Bromomethane 36% (20%), Tetrahydrofuran (THF) 35% (20%)

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.040 (0.05), 2-Hexanone 0.084 (0.1), Acetone 0.051 (0.1), Methyl ethyl ketone 0.063 (0.1), Tetrahydrofuran (THF) 0.044 (0.05)

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

Continuing Calibration Verification (CHEM17/1027\_26-VT-S1025):

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: 1,2-Dibromo-3-chloropropane 0.037 (0.05), Bromoform 0.089 (0.1), Tetrahydrofuran (THF) 0.040 (0.05)

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

#### CHEM26 10/28/17-1

Jane Li, Chemist 10/28/17

BZ28848, BZ28850, BZ28851, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28867

Initial Calibration Verification (CHEM26/VT-1023):

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

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

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

Continuing Calibration Verification (CHEM26/1028\_02-VT-1023):

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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### VOA Narration

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.

#### **CHEM26 10/31/17-1**

Jane Li, Chemist 10/31/17

BZ28849

Initial Calibration Verification (CHEM26/VT-1030):

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

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

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

Continuing Calibration Verification (CHEM26/1031\_02-VT-1030):

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 407562 (BZ28298)**

BZ28866

All LCS recoveries were within 70 - 130 with the following exceptions: Tetrahydrofuran (THF)(68%)

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%.

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

#### **Batch 407953 (BZ29434)**

BZ28849

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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

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

### QC (Site Specific):

#### **Batch 407599 (BZ28865)**

BZ28848, BZ28850, BZ28851, BZ28852, BZ28853, BZ28854, BZ28855, BZ28856, BZ28857, BZ28858, BZ28859, BZ28860, BZ28861, BZ28862, BZ28863, BZ28864, BZ28865, BZ28867

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(57%), Chloromethane(69%),

Dichlorodifluoromethane(61%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(58%), Chloromethane(69%),



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## RCP Certification Report

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### **VOA Narration**

Dichlorodifluoromethane(62%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 70 - 130 with the following exceptions: 1,2,3-Trichlorobenzene(47%), 1,2,4-Trichlorobenzene(48%), 1,2-Dichlorobenzene(67%), 1,3-Dichlorobenzene(69%), 1,4-Dichlorobenzene(66%), 2-Isopropyltoluene(67%), Acetone(33%), Bromomethane(66%), Chloroethane(69%), Chloromethane(65%), Dichlorodifluoromethane(55%), Hexachlorobutadiene(44%), Naphthalene(61%), n-Butylbenzene(62%), Trichlorofluoromethane(69%), Vinyl chloride(65%)

All MSD recoveries were within 70 - 130 with the following exceptions: 1,2,3-Trichlorobenzene(47%), 1,2,4-Trichlorobenzene(50%), Acetone(37%), Bromomethane(67%), Chloromethane(66%), Dichlorodifluoromethane(55%), Hexachlorobutadiene(55%), Naphthalene(58%), Vinyl chloride(67%)

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

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

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### **Temperature Narration**

The samples were received at 2.1C with cooling initiated.

(Note acceptance criteria is above freezing up to 6°C)



# 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**



Cooler: Yes  No   
 Coolant: IPK  ICE   
 Temp 9.9 Pg 1 of 2

Data Delivery:

Fax # \_\_\_\_\_  
 Email: C.lindah1@TRCSolutions.com

Project P.O.:

Project: ConnDot Merritt RR Sta

Report to: Chris Lindahl

Invoice to: Chris Lindahl

Phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification  
 Date: 10/27/17

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
28847	EB102717	A4	10/27/17	09:20
28848	SB-14	S	09:30	09:30
28849	SB-11	S	09:45	09:45
28850	SB-09	S	10:00	10:00
28851	SB102717LL	A4	10:10	10:10
28852	SB-08	S	10:40	10:40
28853	SB-07	S	11:15	11:15
28854	SB-05	S	11:35	11:35
28855	SB-04	S	11:40	11:40
28856	SB-04A	S	11:50	11:50
28857	SB-03	S	12:17	12:50
28858	SB-01	S	12:17	12:50

Analysis Request  
Stock  
ETPH  
PCRB Meks (T-1)  
PCRB Meks (T-2)  
PCRB Meks (T-3)

40 ml VOA Vial (Metal) (oz)	GL Amber 100ml As Is (H2O) (oz)	GL Amber 100ml As Is (HCl) (oz)	PL H2SO4 1250ml As Is (H2SO4) (oz)	PL HNO3 250ml (oz)	Bacteria (as is)	Bacteria (W/M10)
3	3	1				288-06
3	2					
3	2					
3	2					
3	2					Solvent Blank
3	2					
3	2					
3	2					
3	2					
3	2					
3	2					

Relinquished by: \_\_\_\_\_ Accepted by: \_\_\_\_\_

Date: 10/27/17 Time: 17:48

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

Data Package:  Tier II Checklist  Full Data Package\*  Phoenix Std Report  Other

\* SURCHARGE APPLIES

Turnaround:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other

Comments, Special Requirements or Regulations:

State where samples were collected: CT

\* SURCHARGE APPLIES



**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**

Cooler: Yes  No   
 Coolant: IPK  ICE   
 Temp 21.1 C Pg 2 of 2

Data Delivery:  Fax # \_\_\_\_\_  
 Email: Cindahl@TRCSolutions.com

Customer: TRC Project: ConDOT West 7 RR Station P.O.  
 Address: 21 Gritten Road North Report to: Chris Lindahl  
Windsor, CT 06095 Invoice to: Chris Lindahl  
 Phone #: \_\_\_\_\_ Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Analysis Request: VOC SVOC ETH PCBs & Metals (SL)  
PCBs & Metals (SL)  
RCA & Metals (SL)

Sampler's Signature: \_\_\_\_\_ Date: 10/27/17  
 Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WM=Waste Water  
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe  
OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	ETH	PCBs & Metals (SL)	PCBs & Metals (SL)	RCA & Metals (SL)	Soil VOA Vial (1 methanol) [3] H <sub>2</sub> O	GL Soil container (8) [oz]	GL Amber 100ml [As is] [HCl]	PL As is [250ml] [500ml] [1000ml]	PL H <sub>2</sub> SO <sub>4</sub> [250ml] [500ml] [1000ml]	PL NaOH 250ml	Bacteria (as is)	Bacteria (W/MO)
28859	SB-02	S	10/27/17	1305	X	X	X	X	X	X	3	2						
28860	SB-06	S		1330	X	X	X	X	X	X	3	2						
28861	SB-10	S		1345	X	X	X	X	X	X	3	2						
28862	SB-12	S		1405	X	X	X	X	X	X	3	2						
28863	SB-13	S		1420	X	X	X	X	X	X	3	2						
28864	SB-16	S		1435	X	X	X	X	X	X	3	2						
28865	SB-15	S	10/27/17	1500	X	X	X	X	X	X	3	2						
28867	TB HL																	

Relinquished by: \_\_\_\_\_ Accepted by: \_\_\_\_\_  
 Date: 10/27/17 Time: 17:45  
 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  EQulS  Other   
 Data Package:  Tier II Checklist  Full Data Package\*  Phoenix Std Report  Other   
 Turnaround:  1 Day\*  2 Days\*  3 Days\*  Standard  Other   
 State where samples were collected: CT  
 \* SURCHARGE APPLIES

