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DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

November 16, 2018

Mr. Adam Fox, P.E.

Division of Environmental Compliance
Connecticut Department of Transportation
P.O. Box 317546
Newington, CT 06131-7546

Attention : Mr. Jason Coite / Ms. Mandy Socolosky

**SUBJECT: ON-CALL ENVIRONMENTAL SERVICES**
**TASK 910 – REGULATORY COMPLIANCE**
**BRIDGES #01218 & #04180 OVER HOUSATONIC RIVER**
**NEWTOWN/SOUTHBURY, CONNECTICUT**
**STATE PROJECT NO. 0096-0201 / ASSIGNMENT NO. 218-5609**
**DTC PROJECT NO. 17-141-07X**

Dear Mr. Fox:

DTC, Inc. completed a screening-level, sediment and soil investigation in advance of the proposed scope of work associated with the upgrades to the I-84 bridges (#01218 & #04180) over the Housatonic River in Newtown/Southbury, Connecticut. This investigation was completed on July 18 and 24, 2018, and in accordance with our Request for Assignment (RFA) dated June 28, 2018. Below is a detail of those activities, along with our findings, summary and recommendations.

*Scope of Work and Sampling Rational*

On July 18, 2018, a DTC field inspector collected two (2) shallow sediment samples from the upper six inches of riverbed material in the Housatonic River utilizing a Ponar Dredge Sampler. The sampler was deployed from a boat, with locations selected based on our understanding for the proposed construction activities at/round these areas. For the purposes of this assessment, several contaminants of concern (COCs) were identified and the following analytical was used to evaluate these areas, including; extractable total petroleum hydrocarbons (ETPH), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), PCBs, Chlorinated Herbicides, and Total RCRA 8 metals. Sediment sample locations are depicted on the attached; Figure 1 – Site Plan with Soil and Sediment Locations.

On July 24, 2018, DTC contracted with Glacier Drilling, LLC of Durham, CT to complete six (6) soil borings within the approximate roadway work limits utilizing a direct-push drill rig, see Figure 1. Due



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to the current site use multiple COCs are identified related to highway activities, the following analytical was used to evaluate the area; extractable total petroleum hydrocarbons (ETPH), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), PCBs, Chlorinated Herbicides, and total RCRA 8 metals. A DTC field inspector was on site to oversee drilling activities, log soil lithology, and collect representative soil samples. Borings for this investigation were advanced to a depth of 10 feet below grade.

Boring logs were prepared describing the lithology encountered in each of the soil borings. Boring logs are included as an attachment to this letter.

Soil cores were collected during advancement of each boring using a 2-inch diameter, 5-foot long, thin-walled sampler. Each sample was collected within a dedicated acetate liner. A representative portion of each soil core was collected, and field screened with a photoionization detector (PID). The PID was equipped with a 10.6 eV bulb and was calibrated to isobutylene standard gas (100 parts per million). All drill cuttings were placed back into each borehole.

Sediment and Soil samples from the borings were selected by DTC for laboratory analysis and submitted to a State of Connecticut Department of Public Health certified laboratory. The samples were tracked from the field to the laboratory with a chain of custody.

*Regulatory Criteria*

The Connecticut Department of Energy & Environmental Protection (DEEP) Remediation Standard Regulations (RSRs) only apply to sites that are currently regulated under a DEEP cleanup program. At this time, the site is not regulated under any DEEP program, however, the analytical results from the soil and sediment samples obtained during this investigation were compared to the numeric criteria in the RSRs, as guidelines to evaluate the data and provide conclusions regarding the concentrations of compounds detected.

The RSRs contain two sets of criteria to which the data was compared, including:

- The Residential Direct Exposure Criteria (RDEC), which apply to all sites except those for which residential uses are specifically prohibited in accordance with an Environmental Land Use Restriction (ELUR), and
- The GA Pollutant Mobility Criteria (GA PMC), which apply to Sites located in areas with "GA" classified groundwater.

*Analytical Results*

Two (2) sediment samples and twelve (12) soil samples were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, CT. All of the samples were tested for the following analysis; ETPH via the Connecticut Department of Public Health (DPH) methodology, SVOCs via



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EPA Method 8270, VOCs via EPA Method 8260/5035, PCBs via EPA Methods 8082, Chlorinated Herbicides via EPA Method 8151, and total RCRA 8 metals via EPA Method 6010.

Analytical results are summarized in the attached Table 1, and are further detailed below:

ETPH was detected in soil sample B-3 (5-7.5') at 800 mg/kg, above the GA PMC and RDEC of 500 mg/kg. ETPH was detected in sediment sample SED-1 at 150 mg/kg, which is below criteria. ETPH was not detected above laboratory detection limits in the other samples collected.

SVOC compounds were detected in soil sample B-3 (0-2.5') and sediment sample SED-2 at concentrations below applicable criteria, but above laboratory reporting limits. SVOCs were not detected above laboratory detection limits in the other samples collected.

VOCs and PCBs were not detected above laboratory reporting limits in any of the soil/sediment samples analyzed.

One or more of the RCRA 8 metals were detected in each of the soil/sediment samples at concentrations well below their respective criteria. The metals concentrations are indicative at naturally occurring concentrations.

*Summary & Recommendations*

The following provides a summary of the potential sources of soil contamination identified during completion of this investigation. Based on our findings, one (1) Area of Environmental Concern (AOEC) and two (2) Low-level Areas of Environmental Concern (LLAOECs) were identified within the project area. The identified AOEC and LLAOECs, are further detailed below, and depicted on the attached Figure 2 – Site Plan with AOEC and LLAOEC Locations.

**AOEC-1 – Soil in the Vicinity of Boring B-3**

ETPH (at concentrations above applicable RSR criteria) was detected in soil sample obtained from soil boring B-3 at a depth of 5 to 7.5 feet below grade. The ETPH in soil may be fill related impact.

Several SVOC compounds were also detected below applicable criteria in a shallow soil sample collected from soil boring B-3 at a depth of 0 to 2.5 feet below grade. This impact may be related to vehicular emissions from the highway.

Any excavated soil from within the vicinity of B-3 should be handled as controlled material.

**LLAOEC "A" – Low Level Soil in the Vicinity of Boring B-5**

A low-level VOC compound (carbon disulfide) was detected (at concentrations below applicable RSR criteria) in a shallow soil sample obtained from soil boring B-5 at a depth of 0 to 2.5 feet below grade. The source of carbon disulfide in this sample is unknown.

Any excavated soil from within the vicinity of soil boring B-5 should be handled as controlled material.

**LLAOEC "B" – Low Level Sediment**

Low-level ETPH and SVOCs (at concentrations below criteria) were detected in the shallow sediment samples obtained from SED-1 and SED-2. PCBs were not detected in any of the sediment samples.

Any excavated sediments from the Housatonic River should be handled as controlled material.

Based on the results of this investigation, DTC recommends that a Task 310 – Plans, Specifications, and Estimates be assigned to prepare plans and specifications for the proper management and disposal of contaminated materials that may be excavated, handled, transported, or disposed during construction activities and for the establishment of appropriate worker health and safety protocols.

If you have any questions or need additional information, please feel free to contact me at (203) 239-4200.

Sincerely,

Mark G. Burno, LEP, Sr. Engineer
**DTC**

Scott M. Feulner, Project Manager
**DTC**

Attachments: Figure 1 – Site Plan with Soil and Sediment Sample Locations
Figure 2 – Site Plan with AOEC & LLAOEC Locations
Table 1 - Summary of Analytical Laboratory Results
Soil Boring Logs
Phoenix Analytical Reports – July 23 & August 1, 2018

cc: File w/attachments



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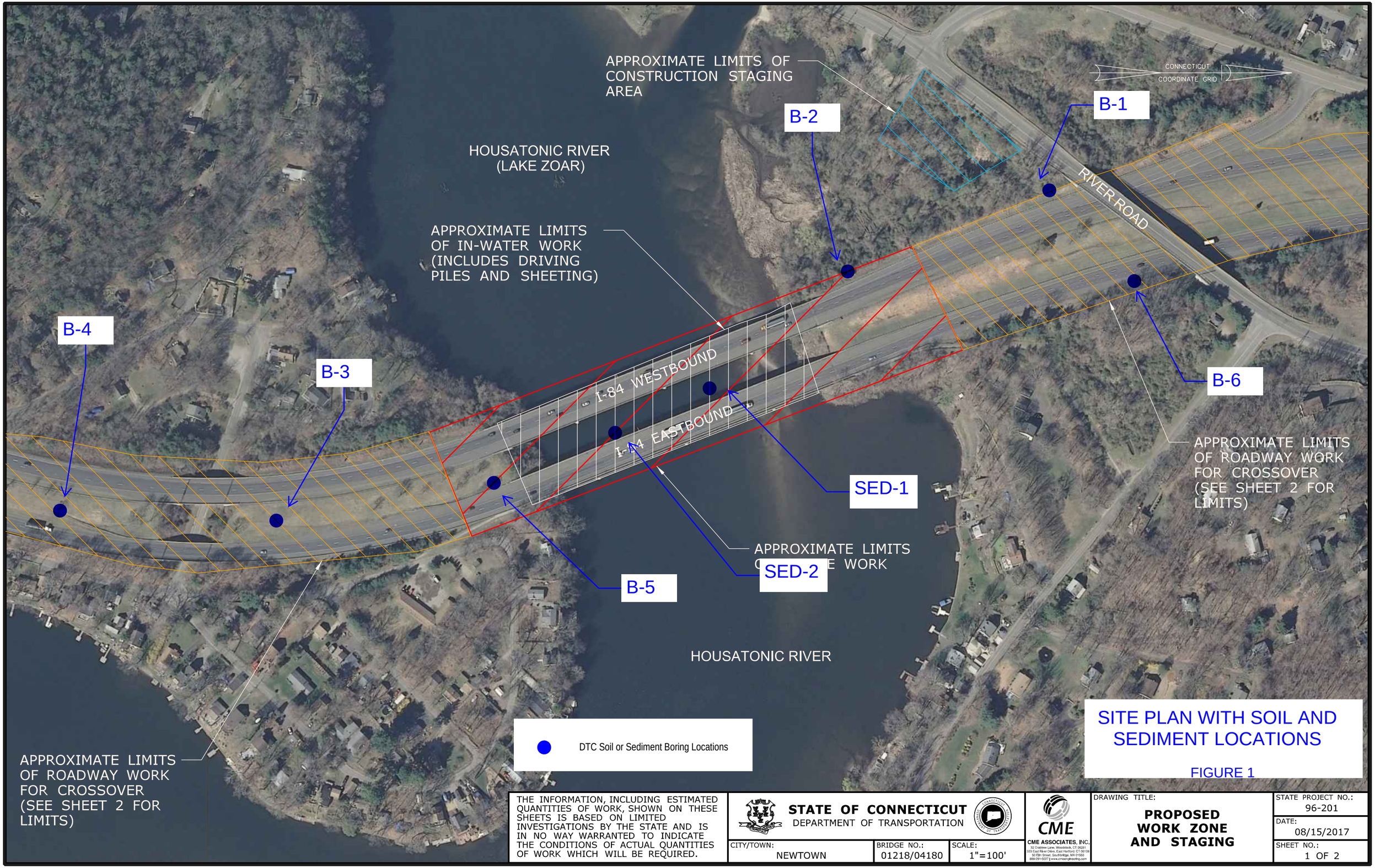



# SITE PLAN WITH SOIL AND SEDIMENT LOCATIONS

FIGURE 1

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.

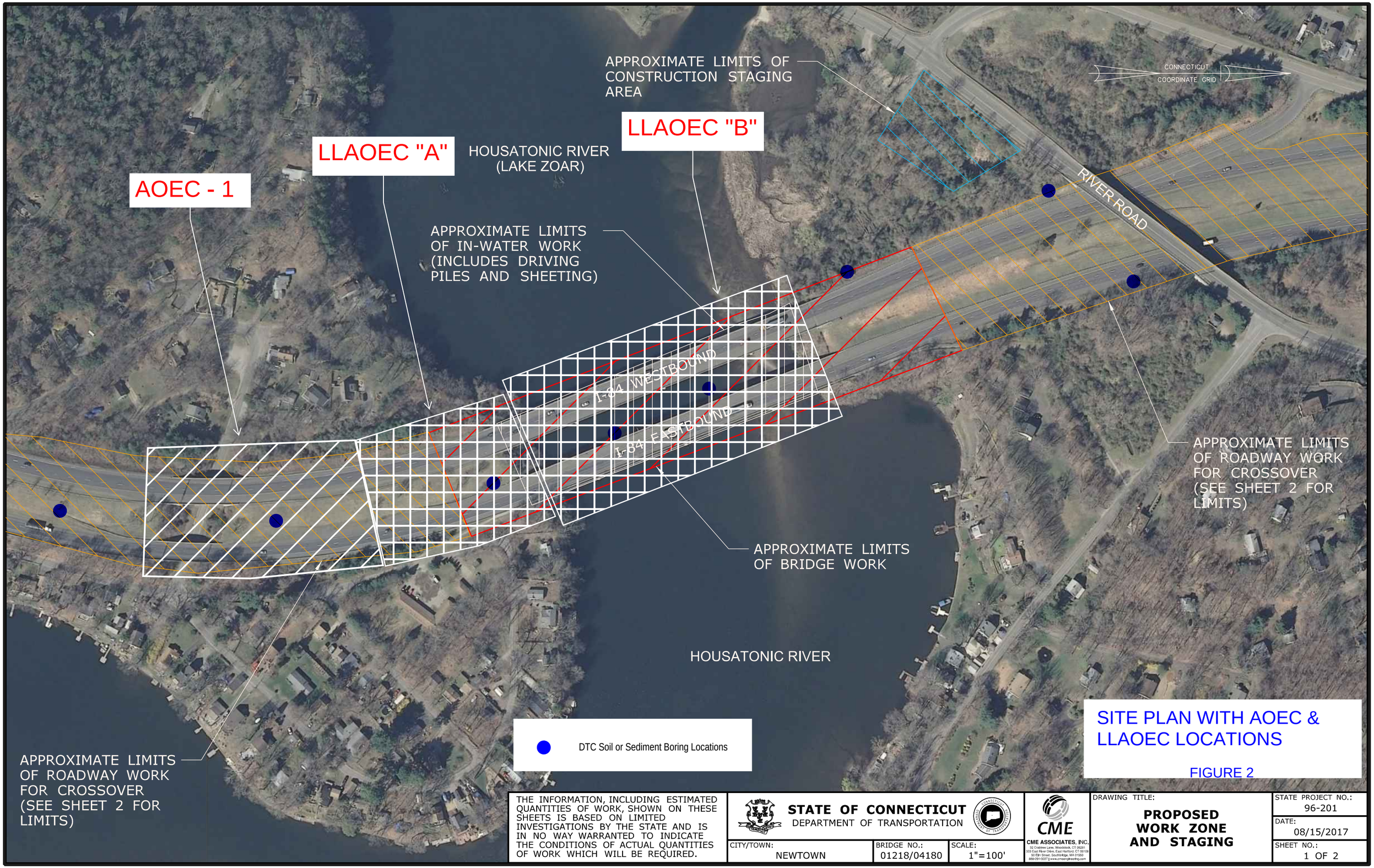
**STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION

CITY/TOWN: NEWTOWN
BRIDGE NO.: 01218/04180
SCALE: 1"=100'

CME
CME ASSOCIATES, INC.
32 Crestmere Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
860-291-3207 | www.cmeengineering.com

DRAWING TITLE:
**PROPOSED WORK ZONE AND STAGING**

STATE PROJECT NO.: 96-201
DATE: 08/15/2017
SHEET NO.: 1 OF 2




# SITE PLAN WITH AOEC & LLAOEC LOCATIONS

FIGURE 2

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.

**STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION

CME
CME ASSOCIATES, INC.
32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
888-291-3227 | www.cmeengineering.com

| CITY/TOWN: | BRIDGE NO.: | SCALE: |
|---|---|---|
| NEWTOWN | 01218/04180 | 1"=100' |

DRAWING TITLE:
**PROPOSED WORK ZONE AND STAGING**

| | |
|---|---|
| STATE PROJECT NO.: | 96-201 |
| DATE: | 08/15/2017 |
| SHEET NO.: | 1 OF 2 |

# TABLE 1
## Analytical Results
Task 910
I-84 Over Housatonic River
*Newtown and Southbury, Connecticut*

| Compound | RSR Criteria | | | B-1 2.5-5' | B-1 5-7.5' | B-2 2.5-5' | B-2 7.5-10' | B-3 0-2.5' | B-3 5-7.5' | B-4 2.5-5' | B-4 5-7.5' | B-5 0-2.5' | B-5 7.5-10' | B-6 2.5-5' | B-6 7.5-10' | SED-1 0-.5' | SED-2 0-.5' |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RDEC | IDEC | GA PMC | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/24/18 | 7/18/18 | 7/18/18 |
| **Petroleum Hydrocarbons (mg/Kg)** | | | | | | | | | | | | | | | | | |
| ETPH | 500 | 2,500 | 500 | ND<57 | ND<56 | ND<52 | ND<58 | ND<270 | **800** | ND<56 | ND<57 | ND<55 | ND<51 | ND<53 | ND<54 | 150 | ND<59 |
| **Volatile Organic Compounds (mg/Kg)** | | | | | | | | | | | | | | | | | |
| *Carbon Disulfide* | *500* | *1,000* | *0.8* | ND<0.0047 | ND<0.0045 | ND<0.0043 | ND<0.0054 | ND<0.005 | ND<0.0054 | ND<0.0054 | ND<0.0048 | 0.013 | ND<0.0051 | ND<0.0052 | ND<0.0047 | ND<0.0039 | ND<0.0076 |
| **Polynuclear Aromatic Hydrocarbons (mg/Kg)** | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 1 | 7.8 | 1 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.27 | 0.26 | ND<0.47 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.24 | ND<0.25 | ND<0.25 | ND<0.39 | ND<0.32 |
| *Chrysene* | *84* | *780* | *1* | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.27 | 0.26 | ND<0.47 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.24 | ND<0.25 | ND<0.25 | ND<0.39 | ND<0.32 |
| Fluoranthene | 1,000 | 2,500 | 5.6 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.27 | 0.46 | ND<0.47 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.24 | ND<0.25 | ND<0.25 | ND<0.39 | 0.46 |
| Pyrene | 1,000 | 2,500 | 4 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.27 | 0.39 | ND<0.47 | ND<0.27 | ND<0.27 | ND<0.25 | ND<0.24 | ND<0.25 | ND<0.25 | ND<0.39 | 0.47 |
| **Metals (mg/Kg)** | | | | | | | | | | | | | | | | | |
| Arsenic | 10 | 10 | 0.05 | 6.21 | 6.76 | 4.6 | 5.95 | 3.98 | 1 | 5.94 | 6.58 | 3.3 | 5.73 | 3.6 | 4.86 | 2.60 | 4.86 |
| Barium | 4,700 | 140,000 | 1 | 51.4 | 48.2 | 30.8 | 45.2 | 62.8 | 101.0 | 53.8 | 32.9 | 100.0 | 25.2 | 89.6 | 81.0 | 66.1 | 81.0 |
| Cadmium | 34 | 1,000 | 0.005 | ND<0.39 | ND<0.38 | ND<0.33 | ND<0.4 | ND<0.36 | ND<0.36 | ND<0.4 | ND<0.34 | ND<0.37 | ND<0.36 | ND<0.38 | ND<0.37 | ND<0.51 | ND<0.37 |
| Chromium | NE | NE | 0.05 | 14.1 | 19.2 | 11.5 | 19.0 | 12.2 | 17.8 | 16.4 | 12.0 | 22.3 | 8.89 | 22.1 | 19.1 | 18.4 | 19.1 |
| Mercury | 20 | 160 | 0.002 | ND<0.03 | ND<0.03 | 0.04 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.03 | ND<0.04 | ND<0.03 |
| Lead | 400 | 1,000 | 0.015 | 4.73 | 4.97 | 4.09 | 5.11 | 7.99 | 5.59 | 23.60 | 10.50 | 6.28 | 3.78 | 4.15 | 4.11 | 10.10 | 4.11 |
| Selenium | 340 | 10,000 | 0.05 | ND<1.6 | ND<1.5 | ND<1.3 | ND<1.6 | ND<1.4 | ND<1.4 | ND<1.6 | ND<1.4 | ND<1.5 | ND<1.4 | ND<1.5 | ND<1.5 | ND<2.1 | ND<1.5 |
| Silver | 340 | 10,000 | 0.036 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<3.9 | ND<5.1 | ND<3.9 |
| **PCBs (mg/Kg)** | 1 | 10 | 0.0005 | ND<0.38 | ND<0.38 | ND<0.35 | ND<0.38 | ND<0.37 | ND<0.34 | ND<0.38 | ND<0.38 | ND<0.36 | ND<0.34 | ND<0.35 | ND<0.36 | ND<0.36 | ND<0.36 |
| **Chlorinated Herbicides** | Various | Various | Various | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND<2.8 | ND<2.3 |
| **% Solids** | NA | NA | NA | 86 | 86 | 94 | 86 | 91 | 97 | 88 | 87 | 90 | 95 | 91 | 91 | 60 | 72 |

Notes:
Only parameters detected are shown
Bolded and Shaded concentrations exceed the RDEC
Bolded and underlined concentrations exceed the GA PMC
ND = Not Detected at the indicated detection limit
NE = None Established
NA = Not Analyzed or Not Applicable
RSR = Remediation Standard Regulations
RDEC = Residential Direct Exposure Criteria
PMC = Pollutant Mobility Criteria
Italicized compounds and criteria are based on Table 10: DEEP
Recommended Criteria Values for Common Additional Polluting Substances
and Alternative Criteria Requests
ETPH = Extractable Total Petroleum Hydrocarbons

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|---|---|---|---|---|
| **Subsurface Log** | **Sheet** 1 of 1 | ***Date started:*** 7-24-2018 ***Date Completed:*** 7-24-2018 | **BORING No.** **B-1** | |
| ***Project:*** I-84 Southbury/ Newtown<br>***Location:*** I-84 - Housatonic River bridge Southbury/Newtown | | | ***Method of investigation:*** 2" Direct Push Tooling | |
| ***Project No.:*** 17-141-07X<br>***P. Manager:*** Scott Feulner | ***Drilling Co.:*** Glacier Drilling<br>***Geologist:*** DS | ***Driller:***<br>***D. Helper:*** | ***Drill Rig:*** Geoprobe 6610 DT | ***Weather:*** Partly Cloudy, 85°F |

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| 0'-5' | 1 | 0'-2.5' | 40 | 6" Asphalt | 0.0 | Not encountered |
| | | | | Dark brown/ Gray SAND and silt with mixed gravel. Light fuel odor. (FILL) | 15.3 | |
| | 2 | 2.5'-5' | | Refusal at 24". Brown SAND with mixed gravel. (FILL)<br>20" of No Recovery | 0.0 | |
| 5'-10' | 3 | 5'-7.5' | 48 | 2" of light brown/ red SAND, 22" of Dark brown SILT and clay with mix of gravel and organics. Light fuel odor. (FILL) | 5.3 | |
| | 4 | 7.5'-10' | | SAA | 0.0 | |
| | | | | | | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

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# Subsurface Log

**Sheet** 1 of 1

***Date started:*** 7-24-2018
***Date Completed:*** 7-24-2018

**BORING No. B-2**

***Project:*** I-84 Southbury/ Newtown
***Location:*** I-84 - Housatonic River bridge Southbury/ Newtown

***Method of investigation:*** 2" Direct Push Tooling

***Project No.:*** 17-141-07X
***P. Manager:*** Scott Feulner

***Drilling Co.:*** Glacier Drilling
***Geologist:*** DS

***Driller:***
***D. Helper:***

***Drill Rig:*** Geoprobe 6610 DT

***Weather:*** Partly Cloudy, 85°F

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| | | | | 4" Asphalt | 0.0 | Not encountered |
| 0'-5' | 1 | 0'-2.5' | 48 | Dark brown SAND and gravel. (FILL) | 0.0 | |
| | 2 | 2.5'-5' | | Light Brown SAND and gravel. (FILL) No odor.<br>12" of No Recovery | 0.0 | |
| 5'-10' | 3 | 5'-7.5' | 60 | Light Brown SAND and silt with mix of gravel. (FILL) Organic odor. | 0.6 | |
| | 4 | 7.5'-10' | | SAA | 0.0 | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

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|---|---|---|---|---|
| **Subsurface Log** | **Sheet** 1 of 1 | ***Date started:*** 7-24-2018 ***Date Completed:*** 7-24-2018 | **BORING No.** | **B-3** |
| ***Project:*** I-84 Southbury/ Newtown<br>***Location:*** I-84 - Housatonic River bridge Southbury/ Newtown | | | ***Method of investigation:*** 2" Direct Push Tooling | |
| ***Project No.:*** 17-141-07X<br>***P. Manager:*** Scott Feulner | ***Drilling Co.:*** Glacier Drilling<br>***Geologist:*** DS | ***Driller:***<br>***D. Helper:*** | ***Drill Rig:*** Geoprobe 6610 DT | ***Weather:*** Partly Cloudy, 85°F |

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| 0'-5' | | | | 6" Topsoil | 0.0 | Not encountered |
| | 1 | 0'-2.5' | 60 | 30" Brown SAND and gravel. (FILL) | 0.0 | |
| | 2 | 2.5'-5' | | 30" asphalt and gravel (FILL) | 0.0 | |
| 5'-10' | 3 | 5'-7.5' | 18 | 18" GRAVEL and asphalt (FILL) Asphalt odor. | 0.0 | |
| | 4 | 7.5'-10' | | 42" No Recovery | 0.0 | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

# Subsurface Log

**Sheet** 1 of 1

***Date started:*** 7-24-2018
***Date Completed:*** 7-24-2018

**BORING No. B-4**

***Project:*** I-84 Southbury/ Newtown
***Location:*** I-84 - Housatonic River bridge Southbury/ Newtown

***Method of investigation:*** 2" Direct Push Tooling

***Project No.:*** 17-141-07X
***P. Manager:*** Scott Feulner

***Drilling Co.:*** Glacier Drilling
***Geologist:*** DS

***Driller:***
***D. Helper:***

***Drill Rig:*** Geoprobe 6610 DT

***Weather:*** Partly Cloudy, 85°F

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| | | | | 8" Topsoil | 0.0 | Not encountered |
| 0'-5' | 1 | 0'-2.5' | 40 | Brown/ Gray SAND and gravel, 10" section of white rock (possibly concrete) (FILL) | 0.0 | |
| | 2 | 2.5'-5' | | Dark brown SAND<br>20" of No Recovery | 0.0 | |
| 5'-10' | 3 | 5'-7.5' | 60 | 8" of Brown SAND Fill, 10" asphalt (FILL) | 0.0 | |
| | 4 | 7.5'-10' | | 42" Gray/ white/ brown SAND and silt (FILL) | 0.0 | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

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|---|---|---|---|---|
| **Subsurface Log** | **Sheet** 1 of 1 | ***Date started:*** 7-24-2018 ***Date Completed:*** 7-24-2018 | **BORING No.** **B-5** | |
| ***Project:*** I-84 Southbury/ Newtown<br>***Location:*** I-84 - Housatonic River bridge Southbury/ Newtown | | | ***Method of investigation:*** 2" Direct Push Tooling | |
| ***Project No.:*** 17-141-07X<br>***P. Manager:*** Scott Feulner | ***Drilling Co.:*** Glacier Drilling<br>***Geologist:*** DS | ***Driller:***<br>***D. Helper:*** | ***Drill Rig:*** Geoprobe 6610 DT | ***Weather:*** Partly Cloudy, 85°F |

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| 0'-5' | 1 | 0'-2.5' | 40 | 6" Asphalt | 0.0 | Not encountered |
| | | | | 20" of gray SAND and gravel (FILL) | 0.0 | |
| | 2 | 2.5'-5' | | 8' of SAA, 12" section of Asphalt (FILL), asphalt odor. | 0.0 | |
| | | | | 20" of No Recovery | | |
| 5'-10' | 3 | 5'-7.5' | 50 | 5" of asphalt (FILL) | 0.0 | |
| | 4 | 7.5'-10' | | 45" Light Brown Sand (FILL) | 0.0 | |
| | | | | 10" No Recovery | | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

DELIVERING PROJECTS WITH INNOVATION & INTEGRITY

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| | | | | |
|---|---|---|---|---|
| **Subsurface Log** | **Sheet** 1 of 1 | ***Date started:*** 7-24-2018 ***Date Completed:*** 7-24-2018 | **BORING No.** **B-6** | |
| ***Project:*** I-84 Southbury/ Newtown<br>***Location:*** I-84 - Housatonic River bridge Southbury/ Newtown | | | ***Method of investigation:*** 2" Direct Push Tooling | |
| ***Project No.:*** 17-141-07X<br>***P. Manager:*** Scott Feulner | ***Drilling Co.:*** Glacier Drilling<br>***Geologist:*** DS | ***Driller:***<br>***D. Helper:*** | ***Drill Rig:*** Geoprobe 6610 DT | ***Weather:*** Partly Cloudy, 85°F |

| Depth (ft.) | Sample No. | Sample Depth (ft.) | Recovery (in.) | Sample Description | PID Readings (ppm) | Groundwater Observations |
|---|---|---|---|---|---|---|
| 0'-5' | | | | 10" Topsoil | 0.0 | Not encountered |
| | 1 | 0'-2.5' | 60 | Refusal at 11" | 0.0 | |
| | 2 | 2.5'-5' | | 50" Brown SAND and clay, No odor. | 0.0 | |
| 5'-10' | 3 | 5'-7.5' | 60 | 30" of Light Brown SILT and clay, No Odor | 0.0 | |
| | 4 | 7.5'-10' | | 30" SAA | 0.0 | |

Notes:
Samples collected with a 5-foot Macro Core
Soil component percentages visually estimated (1-10% = trace, 10-20% = little, 20-35% = some, 35-50% = and)
SAA = Same as Above

**Monday, July 23, 2018**

**Attn: Ethan Stewart**
**Diversified Tech. Consultants**
**2321 Whitney Avenue 3rd floor**
**Hamden Center II**
**Hamden CT 06518**

**Project ID: DOT NEWTOWN**
**Sample ID#s: CA93605 - CA93606**

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

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

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

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

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

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**UT Lab Registration #CT00007**
**VT Lab Registration #VT11301**

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

# Analysis Report

July 23, 2018

FOR: Attn: Ethan Stewart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 07/18/18 | 9:30 |
| Location Code: | DTECHDAS | Received by: | CP | 07/19/18 | 13:20 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | 17-141-07 | | | | |

## Laboratory Data

SDG ID: GCA93605
Phoenix ID: CA93605

Project ID: DOT NEWTOWN
Client ID: SED-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 5.1 | 5.1 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Arsenic | 2.6 | 1.0 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Barium | 66.1 | 0.51 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Cadmium | < 0.51 | 0.51 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Chromium | 18.4 | 0.51 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Mercury | < 0.04 | 0.04 | mg/Kg | 1 | 07/20/18 | RS | SW7471B |
| Lead | 10.1 | 0.51 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Selenium | < 2.1 | 2.1 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Percent Solid | 60 | | % | | 07/19/18 | Q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/19/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/19/18 | JJ/V | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/19/18 | AA/V | SW3545A |
| Mercury Digestion | Completed | | | | 07/20/18 | I/I | SW7471B |
| Soil Extraction for Herbicide | Completed | | | | 07/19/18 | Z/T/R | SW8151A |
| Total Metals Digest | Completed | | | | 07/19/18 | L/AG | SW3050B |
| **Chlorinated Herbicides** | | | | | | | |
| 2,4,5-T | ND | 140 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4,5-TP (Silvex) | ND | 140 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4-D | ND | 280 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4-DB | ND | 2800 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dalapon | ND | 140 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dicamba | ND | 140 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dichloroprop | ND | 280 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dinoseb | ND | 280 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| **QA/QC Surrogates** | | | | | | | |
| % DCAA | 62 | | % | 10 | 07/20/18 | CW | 30 - 150 % |

**Ver 1**

Project ID: DOT NEWTOWN
Client ID: SED-1

Phoenix I.D.: CA93605

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | 150 | 81 | mg/Kg | 1 | 07/20/18 | JRB | CTETPH 8015D |
| Identification | ** | | mg/Kg | 1 | 07/20/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 84 | | % | 1 | 07/20/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1221 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1232 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1242 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1248 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1254 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1260 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1262 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1268 | ND | 540 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 72 | | % | 10 | 07/21/18 | AW | 30 - 150 % |
| % TCMX | 81 | | % | 10 | 07/21/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.4 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Hexanone | ND | 20 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 20 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Acetone | ND | 200 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Acrylonitrile | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |

Project ID: DOT NEWTOWN
Client ID: SED-1

Phoenix I.D.: CA93605

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromochloromethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromoform | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromomethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chlorobenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloroform | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloromethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dibromochloromethane | ND | 2.4 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dibromomethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Ethylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| m&p-Xylene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 23 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 7.8 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methylene chloride | ND | 7.8 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Naphthalene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| o-Xylene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Styrene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 7.8 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Toluene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Total Xylenes | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 7.8 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichloroethene | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Vinyl chloride | ND | 3.9 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 94 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 92 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 92 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 100 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |

Project ID: DOT NEWTOWN
Client ID: SED-1

Phoenix I.D.: CA93605

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2-Dichlorobenzene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,3-Dichlorobenzene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,4-Dichlorobenzene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4,5-Trichlorophenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dichlorophenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dimethylphenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Chloronaphthalene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Chlorophenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Methylnaphthalene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Nitrophenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 550 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 550 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chloro-3-methylphenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Nitrophenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acenaphthene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acenaphthylene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acetophenone | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Anthracene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benz(a)anthracene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(a)pyrene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(b)fluoranthene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(ghi)perylene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(k)fluoranthene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzoic acid | ND | 1100 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzyl butyl phthalate | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroethyl)ether | ND | 550 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Chrysene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |

Project ID: DOT NEWTOWN
Client ID: SED-1

Phoenix I.D.: CA93605

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Diethyl phthalate | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Dimethylphthalate | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Di-n-butylphthalate | ND | 550 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Di-n-octylphthalate | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Fluoranthene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Fluorene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorobenzene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorocyclopentadiene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachloroethane | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Isophorone | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Naphthalene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pentachloronitrobenzene | ND | 100 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pentachlorophenol | ND | 550 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Phenanthrene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Phenol | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pyrene | ND | 390 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 81 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % 2-Fluorobiphenyl | 64 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % 2-Fluorophenol | 58 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Nitrobenzene-d5 | 64 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Phenol-d5 | 67 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Terphenyl-d14 | 63 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| Field Extraction | Completed | | | | 07/18/18 | | SW5035A |

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

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

## Comments:

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

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

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

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

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


**Phyllis Shiller, Laboratory Director**
**July 23, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

July 23, 2018

FOR: Attn: Ethan Stewart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SEDIMENT | Collected by: | | 07/18/18 | 11:30 |
| Location Code: | DTECHDAS | Received by: | CP | 07/19/18 | 13:20 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | 17-141-07 | | | | |

## Laboratory Data

SDG ID: GCA93605
Phoenix ID: CA93606

Project ID: DOT NEWTOWN
Client ID: SED-2

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 4.5 | 4.5 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Arsenic | 3.32 | 0.89 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Barium | 30.1 | 0.45 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Cadmium | < 0.45 | 0.45 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Chromium | 10.1 | 0.45 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Mercury | 0.07 | 0.03 | mg/Kg | 1 | 07/20/18 | RS | SW7471B |
| Lead | 6.58 | 0.45 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Selenium | < 1.8 | 1.8 | mg/Kg | 1 | 07/20/18 | EK | SW6010C |
| Percent Solid | 72 | | % | | 07/19/18 | Q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/19/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/19/18 | JJ/V | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/19/18 | AA/V | SW3545A |
| Mercury Digestion | Completed | | | | 07/20/18 | I/I | SW7471B |
| Soil Extraction for Herbicide | Completed | | | | 07/19/18 | Z/T/R | SW8151A |
| Total Metals Digest | Completed | | | | 07/19/18 | L/AG | SW3050B |
| **Chlorinated Herbicides** | | | | | | | |
| 2,4,5-T | ND | 120 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4,5-TP (Silvex) | ND | 120 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4-D | ND | 230 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| 2,4-DB | ND | 2300 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dalapon | ND | 120 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dicamba | ND | 120 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dichloroprop | ND | 230 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| Dinoseb | ND | 230 | ug/Kg | 10 | 07/20/18 | CW | SW8151A |
| **QA/QC Surrogates** | | | | | | | |
| % DCAA | 70 | | % | 10 | 07/20/18 | CW | 30 - 150 % |

**Ver 1**

Project ID: DOT NEWTOWN
Client ID: SED-2

Phoenix I.D.: CA93606

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 69 | mg/Kg | 1 | 07/20/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/20/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 79 | | % | 1 | 07/20/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1221 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1232 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1242 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1248 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1254 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1260 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1262 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| PCB-1268 | ND | 450 | ug/Kg | 10 | 07/21/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 75 | | % | 10 | 07/21/18 | AW | 30 - 150 % |
| % TCMX | 86 | | % | 10 | 07/21/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 4.5 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 7.0 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Hexanone | ND | 38 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 38 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Acetone | ND | 380 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Acrylonitrile | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |

Project ID: DOT NEWTOWN
Client ID: SED-2

Phoenix I.D.: CA93606

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromochloromethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromoform | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Bromomethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chlorobenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloroform | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Chloromethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dibromochloromethane | ND | 4.5 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dibromomethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Ethylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| m&p-Xylene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 45 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 15 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Methylene chloride | ND | 15 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Naphthalene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| o-Xylene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Styrene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 15 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Toluene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Total Xylenes | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 15 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichloroethene | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| Vinyl chloride | ND | 7.6 | ug/Kg | 1 | 07/20/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 96 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 94 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 103 | | % | 1 | 07/20/18 | JLI | 70 - 130 % |

Project ID: DOT NEWTOWN
Client ID: SED-2

Phoenix I.D.: CA93606

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2-Dichlorobenzene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,3-Dichlorobenzene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 1,4-Dichlorobenzene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4,5-Trichlorophenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dichlorophenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dimethylphenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Chloronaphthalene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Chlorophenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Methylnaphthalene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 2-Nitrophenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 450 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 450 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chloro-3-methylphenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| 4-Nitrophenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acenaphthene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acenaphthylene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Acetophenone | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Anthracene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benz(a)anthracene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(a)pyrene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(b)fluoranthene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(ghi)perylene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzo(k)fluoranthene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzoic acid | ND | 910 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Benzyl butyl phthalate | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroethyl)ether | ND | 450 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Chrysene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |

Project ID: DOT NEWTOWN
Client ID: SED-2

Phoenix I.D.: CA93606

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Diethyl phthalate | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Dimethylphthalate | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Di-n-butylphthalate | ND | 450 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Di-n-octylphthalate | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Fluoranthene | 460 | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Fluorene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorobenzene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachlorocyclopentadiene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Hexachloroethane | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Isophorone | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Naphthalene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pentachlorophenol | ND | 450 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Phenanthrene | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Phenol | ND | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pyrene | 470 | 320 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/20/18 | PS | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 78 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % 2-Fluorobiphenyl | 59 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % 2-Fluorophenol | 51 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Nitrobenzene-d5 | 57 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Phenol-d5 | 57 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| % Terphenyl-d14 | 60 | | % | 1 | 07/20/18 | PS | 30 - 130 % |
| Field Extraction | Completed | | | | 07/18/18 | | SW5035A |

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

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

## Comments:

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

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

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

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

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


**Phyllis Shiller, Laboratory Director**
**July 23, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

Environmental Laboratories, Inc.
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# QA/QC Report

July 23, 2018

## QA/QC Data

SDG I.D.: GCA93605

| 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 439602 (mg/kg), QC Sample No: CA93433 (CA93605, CA93606) | | | | | | | | | | | | | | |
| ICP Metals - Soil | | | | | | | | | | | | | | |
| Arsenic | BRL | 0.60 | 4.60 | 3.62 | 23.8 | 104 | | | 93.7 | | | 75 - 125 | 30 | |
| Barium | BRL | 0.30 | 64.4 | 62.7 | 2.70 | 112 | | | 106 | | | 75 - 125 | 30 | |
| Cadmium | BRL | 0.30 | 0.49 | 0.41 | NC | 97.2 | | | 93.9 | | | 75 - 125 | 30 | |
| Chromium | BRL | 0.6 | 12.8 | 12.7 | 0.80 | 114 | | | 102 | | | 75 - 125 | 30 | |
| Lead | BRL | 0.30 | 48.3 | 46.3 | 4.20 | 104 | | | 94.8 | | | 75 - 125 | 30 | |
| Selenium | BRL | 1.2 | <1.4 | <1.4 | NC | 116 | | | 83.5 | | | 75 - 125 | 30 | |
| Silver | BRL | 0.30 | <3.4 | <0.36 | NC | 107 | | | 101 | | | 75 - 125 | 30 | |
| QA/QC Batch 439698 (mg/kg), QC Sample No: CA94188 (CA93605, CA93606) | | | | | | | | | | | | | | |
| Mercury - Soil | BRL | 0.02 | 0.49 | 0.39 | 22.7 | 122 | 100 | 19.8 | >125 | | | 70 - 130 | 30 | m |

Comment:

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

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

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# QA/QC Report

July 23, 2018

## QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 439719 (ug/kg), QC Sample No: CA93486 (CA93606) | | | | | | | | | | | |
| **Volatiles - Sediment** | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 100 | 86 | 15.1 | 94 | 97 | 3.1 | 70 - 130 | 30 | |
| 1,1,1-Trichloroethane | ND | 5.0 | 96 | 85 | 12.2 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 96 | 81 | 16.9 | 87 | 93 | 6.7 | 70 - 130 | 30 | |
| 1,1,2-Trichloroethane | ND | 5.0 | 89 | 79 | 11.9 | 84 | 87 | 3.5 | 70 - 130 | 30 | |
| 1,1-Dichloroethane | ND | 5.0 | 84 | 74 | 12.7 | 82 | 84 | 2.4 | 70 - 130 | 30 | |
| 1,1-Dichloroethene | ND | 5.0 | 93 | 81 | 13.8 | 90 | 91 | 1.1 | 70 - 130 | 30 | |
| 1,1-Dichloropropene | ND | 5.0 | 95 | 85 | 11.1 | 91 | 94 | 3.2 | 70 - 130 | 30 | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 91 | 78 | 15.4 | 94 | 72 | 26.5 | 70 - 130 | 30 | |
| 1,2,3-Trichloropropane | ND | 5.0 | 87 | 76 | 13.5 | 80 | 86 | 7.2 | 70 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 91 | 77 | 16.7 | 97 | 72 | 29.6 | 70 - 130 | 30 | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 96 | 82 | 15.7 | 84 | 89 | 5.8 | 70 - 130 | 30 | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 99 | 86 | 14.1 | 97 | 93 | 4.2 | 70 - 130 | 30 | |
| 1,2-Dibromoethane | ND | 5.0 | 95 | 82 | 14.7 | 86 | 90 | 4.5 | 70 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 93 | 80 | 15.0 | 94 | 83 | 12.4 | 70 - 130 | 30 | |
| 1,2-Dichloroethane | ND | 5.0 | 91 | 79 | 14.1 | 85 | 88 | 3.5 | 70 - 130 | 30 | |
| 1,2-Dichloropropane | ND | 5.0 | 89 | 78 | 13.2 | 86 | 87 | 1.2 | 70 - 130 | 30 | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 96 | 83 | 14.5 | 88 | 93 | 5.5 | 70 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 94 | 80 | 16.1 | 79 | 84 | 6.1 | 70 - 130 | 30 | |
| 1,3-Dichloropropane | ND | 5.0 | 91 | 79 | 14.1 | 84 | 87 | 3.5 | 70 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 92 | 78 | 16.5 | 77 | 81 | 5.1 | 70 - 130 | 30 | |
| 2,2-Dichloropropane | ND | 5.0 | 101 | 82 | 20.8 | 93 | 94 | 1.1 | 70 - 130 | 30 | |
| 2-Chlorotoluene | ND | 5.0 | 95 | 81 | 15.9 | 86 | 90 | 4.5 | 70 - 130 | 30 | |
| 2-Hexanone | ND | 25 | 76 | 66 | 14.1 | 77 | 73 | 5.3 | 70 - 130 | 30 | I |
| 2-Isopropyltoluene | ND | 5.0 | 105 | 91 | 14.3 | 96 | 102 | 6.1 | 70 - 130 | 30 | |
| 4-Chlorotoluene | ND | 5.0 | 93 | 79 | 16.3 | 81 | 85 | 4.8 | 70 - 130 | 30 | |
| 4-Methyl-2-pentanone | ND | 25 | 79 | 70 | 12.1 | 73 | 76 | 4.0 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 61 | 54 | 12.2 | 65 | 64 | 1.6 | 70 - 130 | 30 | I,m |
| Acrylonitrile | ND | 5.0 | 84 | 73 | 14.0 | 72 | 74 | 2.7 | 70 - 130 | 30 | |
| Benzene | ND | 1.0 | 93 | 81 | 13.8 | 88 | 91 | 3.4 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 96 | 82 | 15.7 | 85 | 90 | 5.7 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 96 | 82 | 15.7 | 89 | 91 | 2.2 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 96 | 85 | 12.2 | 91 | 93 | 2.2 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 104 | 90 | 14.4 | 90 | 95 | 5.4 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 117 | 89 | 27.2 | 111 | 117 | 5.3 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 109 | 95 | 13.7 | 102 | 105 | 2.9 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 99 | 87 | 12.9 | 81 | 83 | 2.4 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 94 | 81 | 14.9 | 86 | 88 | 2.3 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 102 | 82 | 21.7 | 103 | 105 | 1.9 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 94 | 82 | 13.6 | 90 | 92 | 2.2 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 95 | 84 | 12.3 | 91 | 94 | 3.2 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 95 | 84 | 12.3 | 90 | 92 | 2.2 | 70 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | 5.0 | 94 | 83 | 12.4 | 85 | 88 | 3.5 | 70 - 130 | 30 |
| Dibromochloromethane | ND | 3.0 | 106 | 92 | 14.1 | 96 | 101 | 5.1 | 70 - 130 | 30 |
| Dibromomethane | ND | 5.0 | 91 | 81 | 11.6 | 85 | 88 | 3.5 | 70 - 130 | 30 |
| Dichlorodifluoromethane | ND | 5.0 | 127 | 111 | 13.4 | 121 | 123 | 1.6 | 70 - 130 | 30 |
| Ethylbenzene | ND | 1.0 | 96 | 83 | 14.5 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| Hexachlorobutadiene | ND | 5.0 | 98 | 82 | 17.8 | 101 | 87 | 14.9 | 70 - 130 | 30 |
| Isopropylbenzene | ND | 1.0 | 97 | 82 | 16.8 | 90 | 95 | 5.4 | 70 - 130 | 30 |
| m&p-Xylene | ND | 2.0 | 98 | 84 | 15.4 | 90 | 92 | 2.2 | 70 - 130 | 30 |
| Methyl ethyl ketone | ND | 5.0 | 71 | 61 | 15.2 | 76 | 71 | 6.8 | 70 - 130 | 30 |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 99 | 84 | 16.4 | 94 | 95 | 1.1 | 70 - 130 | 30 |
| Methylene chloride | ND | 5.0 | 79 | 68 | 15.0 | 76 | 77 | 1.3 | 70 - 130 | 30 |
| Naphthalene | ND | 5.0 | 94 | 81 | 14.9 | 92 | 79 | 15.2 | 70 - 130 | 30 |
| n-Butylbenzene | ND | 1.0 | 97 | 82 | 16.8 | 81 | 87 | 7.1 | 70 - 130 | 30 |
| n-Propylbenzene | ND | 1.0 | 96 | 83 | 14.5 | 86 | 92 | 6.7 | 70 - 130 | 30 |
| o-Xylene | ND | 2.0 | 96 | 83 | 14.5 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| p-Isopropyltoluene | ND | 1.0 | 99 | 84 | 16.4 | 86 | 93 | 7.8 | 70 - 130 | 30 |
| sec-Butylbenzene | ND | 1.0 | 101 | 87 | 14.9 | 92 | 98 | 6.3 | 70 - 130 | 30 |
| Styrene | ND | 5.0 | 96 | 83 | 14.5 | 84 | 86 | 2.4 | 70 - 130 | 30 |
| tert-Butylbenzene | ND | 1.0 | 97 | 84 | 14.4 | 90 | 96 | 6.5 | 70 - 130 | 30 |
| Tetrachloroethene | ND | 5.0 | 95 | 84 | 12.3 | 89 | 91 | 2.2 | 70 - 130 | 30 |
| Tetrahydrofuran (THF) | ND | 5.0 | 84 | 74 | 12.7 | 77 | 80 | 3.8 | 70 - 130 | 30 |
| Toluene | ND | 1.0 | 93 | 82 | 12.6 | 88 | 90 | 2.2 | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | ND | 5.0 | 94 | 82 | 13.6 | 90 | 93 | 3.3 | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | ND | 5.0 | 92 | 80 | 14.0 | 81 | 84 | 3.6 | 70 - 130 | 30 |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 108 | 91 | 17.1 | 83 | 90 | 8.1 | 70 - 130 | 30 |
| Trichloroethene | ND | 5.0 | 96 | 85 | 12.2 | 92 | 93 | 1.1 | 70 - 130 | 30 |
| Trichlorofluoromethane | ND | 5.0 | 113 | 97 | 15.2 | 109 | 112 | 2.7 | 70 - 130 | 30 |
| Trichlorotrifluoroethane | ND | 5.0 | 105 | 91 | 14.3 | 102 | 104 | 1.9 | 70 - 130 | 30 |
| Vinyl chloride | ND | 5.0 | 110 | 96 | 13.6 | 106 | 109 | 2.8 | 70 - 130 | 30 |
| % 1,2-dichlorobenzene-d4 | 98 | % | 100 | 99 | 1.0 | 98 | 99 | 1.0 | 70 - 130 | 30 |
| % Bromofluorobenzene | 100 | % | 100 | 100 | 0.0 | 100 | 99 | 1.0 | 70 - 130 | 30 |
| % Dibromofluoromethane | 95 | % | 100 | 100 | 0.0 | 100 | 99 | 1.0 | 70 - 130 | 30 |
| % Toluene-d8 | 103 | % | 98 | 99 | 1.0 | 99 | 99 | 0.0 | 70 - 130 | 30 |

Comment:

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

QA/QC Batch 439591 (mg/Kg), QC Sample No: CA93630 (CA93605, CA93606)

## TPH by GC (Extractable Products) - Sediment

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ext. Petroleum H.C. (C9-C36) | ND | 50 | 94 | 93 | 1.1 | 124 | 146 | 16.3 | 60 - 120 | 30 |
| % n-Pentacosane | 81 | % | 67 | 61 | 9.4 | 82 | 95 | 14.7 | 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 439590 (ug/Kg), QC Sample No: CA93883 2X (CA93605, CA93606)

## Polychlorinated Biphenyls - Sediment

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 33 | 89 | 91 | 2.2 | 80 | 71 | 11.9 | 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 | 95 | 81 | 15.9 | 71 | 65 | 8.8 | 40 - 140 | 30 |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 |

# QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| % DCBP (Surrogate Rec) | 92 | % | 109 | 75 | 37.0 | 66 | 61 | 7.9 | 30 - 150 | 30 | r |
| % TCMX (Surrogate Rec) | 87 | % | 97 | 94 | 3.1 | 83 | 76 | 8.8 | 30 - 150 | 30 | |
| QA/QC Batch 439968 (ug/kg), QC Sample No: CA94060 (CA93605) | | | | | | | | | | | |
| Volatiles - Sediment | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 100 | 101 | 1.0 | 100 | 101 | 1.0 | 70 - 130 | 30 | |
| 1,1,1-Trichloroethane | ND | 5.0 | 94 | 95 | 1.1 | 90 | 91 | 1.1 | 70 - 130 | 30 | |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 98 | 100 | 2.0 | 95 | 93 | 2.1 | 70 - 130 | 30 | |
| 1,1,2-Trichloroethane | ND | 5.0 | 92 | 92 | 0.0 | 95 | 93 | 2.1 | 70 - 130 | 30 | |
| 1,1-Dichloroethane | ND | 5.0 | 83 | 85 | 2.4 | 80 | 80 | 0.0 | 70 - 130 | 30 | |
| 1,1-Dichloroethene | ND | 5.0 | 91 | 92 | 1.1 | 76 | 75 | 1.3 | 70 - 130 | 30 | |
| 1,1-Dichloropropene | ND | 5.0 | 94 | 94 | 0.0 | 95 | 95 | 0.0 | 70 - 130 | 30 | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 96 | 98 | 2.1 | 97 | 100 | 3.0 | 70 - 130 | 30 | |
| 1,2,3-Trichloropropane | ND | 5.0 | 92 | 93 | 1.1 | 86 | 85 | 1.2 | 70 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 95 | 99 | 4.1 | 99 | 101 | 2.0 | 70 - 130 | 30 | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 94 | 96 | 2.1 | 95 | 96 | 1.0 | 70 - 130 | 30 | |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 101 | 105 | 3.9 | 100 | 97 | 3.0 | 70 - 130 | 30 | |
| 1,2-Dibromoethane | ND | 5.0 | 96 | 97 | 1.0 | 97 | 96 | 1.0 | 70 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 92 | 95 | 3.2 | 95 | 95 | 0.0 | 70 - 130 | 30 | |
| 1,2-Dichloroethane | ND | 5.0 | 92 | 93 | 1.1 | 93 | 91 | 2.2 | 70 - 130 | 30 | |
| 1,2-Dichloropropane | ND | 5.0 | 90 | 91 | 1.1 | 91 | 91 | 0.0 | 70 - 130 | 30 | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 94 | 97 | 3.1 | 95 | 96 | 1.0 | 70 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 93 | 96 | 3.2 | 97 | 97 | 0.0 | 70 - 130 | 30 | |
| 1,3-Dichloropropane | ND | 5.0 | 92 | 93 | 1.1 | 93 | 92 | 1.1 | 70 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 92 | 94 | 2.2 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| 2,2-Dichloropropane | ND | 5.0 | 98 | 96 | 2.1 | 92 | 94 | 2.2 | 70 - 130 | 30 | |
| 2-Chlorotoluene | ND | 5.0 | 93 | 95 | 2.1 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| 2-Hexanone | ND | 25 | 80 | 80 | 0.0 | 77 | 73 | 5.3 | 70 - 130 | 30 | |
| 2-Isopropyltoluene | ND | 5.0 | 102 | 104 | 1.9 | 104 | 105 | 1.0 | 70 - 130 | 30 | |
| 4-Chlorotoluene | ND | 5.0 | 92 | 94 | 2.2 | 93 | 95 | 2.1 | 70 - 130 | 30 | |
| 4-Methyl-2-pentanone | ND | 25 | 85 | 85 | 0.0 | 83 | 79 | 4.9 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 68 | 70 | 2.9 | 59 | 68 | 14.2 | 70 - 130 | 30 | l,m |
| Acrylonitrile | ND | 5.0 | 87 | 89 | 2.3 | 87 | 82 | 5.9 | 70 - 130 | 30 | |
| Benzene | ND | 1.0 | 92 | 92 | 0.0 | 92 | 92 | 0.0 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 95 | 97 | 2.1 | 97 | 97 | 0.0 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 95 | 95 | 0.0 | 93 | 92 | 1.1 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 97 | 98 | 1.0 | 96 | 97 | 1.0 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 107 | 110 | 2.8 | 101 | 100 | 1.0 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 109 | 105 | 3.7 | 92 | 91 | 1.1 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 105 | 108 | 2.8 | 72 | 77 | 6.7 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 83 | 83 | 0.0 | 75 | 77 | 2.6 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 93 | 94 | 1.1 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 97 | 97 | 0.0 | 86 | 89 | 3.4 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 92 | 94 | 2.2 | 89 | 89 | 0.0 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 92 | 92 | 0.0 | 80 | 80 | 0.0 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 94 | 95 | 1.1 | 93 | 92 | 1.1 | 70 - 130 | 30 | |
| cis-1,3-Dichloropropene | ND | 5.0 | 95 | 96 | 1.0 | 96 | 96 | 0.0 | 70 - 130 | 30 | |
| Dibromochloromethane | ND | 3.0 | 108 | 109 | 0.9 | 104 | 105 | 1.0 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 93 | 94 | 1.1 | 94 | 93 | 1.1 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 112 | 113 | 0.9 | 99 | 99 | 0.0 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 94 | 95 | 1.1 | 95 | 96 | 1.0 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 94 | 98 | 4.2 | 103 | 105 | 1.9 | 70 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | ND | 1.0 | 93 | 95 | 2.1 | 93 | 95 | 2.1 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 95 | 98 | 3.1 | 96 | 98 | 2.1 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 75 | 74 | 1.3 | 72 | 68 | 5.7 | 70 - 130 | 30 | m |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 102 | 103 | 1.0 | 92 | 89 | 3.3 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 79 | 81 | 2.5 | 72 | 77 | 6.7 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 98 | 100 | 2.0 | 100 | 99 | 1.0 | 70 - 130 | 30 | |
| n-Butylbenzene | ND | 1.0 | 94 | 98 | 4.2 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| n-Propylbenzene | ND | 1.0 | 92 | 95 | 3.2 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| o-Xylene | ND | 2.0 | 94 | 96 | 2.1 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| p-Isopropyltoluene | ND | 1.0 | 95 | 99 | 4.1 | 97 | 99 | 2.0 | 70 - 130 | 30 | |
| sec-Butylbenzene | ND | 1.0 | 97 | 100 | 3.0 | 98 | 100 | 2.0 | 70 - 130 | 30 | |
| Styrene | ND | 5.0 | 96 | 98 | 2.1 | 98 | 98 | 0.0 | 70 - 130 | 30 | |
| tert-Butylbenzene | ND | 1.0 | 93 | 95 | 2.1 | 93 | 96 | 3.2 | 70 - 130 | 30 | |
| Tetrachloroethene | ND | 5.0 | 93 | 94 | 1.1 | 99 | 100 | 1.0 | 70 - 130 | 30 | |
| Tetrahydrofuran (THF) | ND | 5.0 | 88 | 88 | 0.0 | 85 | 80 | 6.1 | 70 - 130 | 30 | |
| Toluene | ND | 1.0 | 92 | 93 | 1.1 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| trans-1,2-Dichloroethene | ND | 5.0 | 93 | 95 | 2.1 | 83 | 84 | 1.2 | 70 - 130 | 30 | |
| trans-1,3-Dichloropropene | ND | 5.0 | 95 | 94 | 1.1 | 95 | 93 | 2.1 | 70 - 130 | 30 | |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 111 | 113 | 1.8 | 103 | 101 | 2.0 | 70 - 130 | 30 | |
| Trichloroethene | ND | 5.0 | 95 | 96 | 1.0 | 95 | 97 | 2.1 | 70 - 130 | 30 | |
| Trichlorofluoromethane | ND | 5.0 | 106 | 107 | 0.9 | 94 | 92 | 2.2 | 70 - 130 | 30 | |
| Trichlorotrifluoroethane | ND | 5.0 | 102 | 101 | 1.0 | 87 | 82 | 5.9 | 70 - 130 | 30 | |
| Vinyl chloride | ND | 5.0 | 105 | 105 | 0.0 | 87 | 89 | 2.3 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 98 | % | 99 | 100 | 1.0 | 99 | 99 | 0.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 100 | % | 100 | 100 | 0.0 | 101 | 100 | 1.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 96 | % | 102 | 101 | 1.0 | 99 | 100 | 1.0 | 70 - 130 | 30 | |
| % Toluene-d8 | 103 | % | 99 | 99 | 0.0 | 100 | 99 | 1.0 | 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 439598 (ug/Kg), QC Sample No: CA94187 10X (CA93605, CA93606)

## Chlorinated Herbicides - Sediment

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T | ND | 83 | 64 | 84 | 27.0 | | | | 40 - 140 | 30 | |
| 2,4,5-TP (Silvex) | ND | 83 | 70 | 71 | 1.4 | | | | 40 - 140 | 30 | |
| 2,4-D | ND | 170 | 95 | 88 | 7.7 | | | | 40 - 140 | 30 | |
| 2,4-DB | ND | 1700 | 83 | 77 | 7.5 | | | | 40 - 140 | 30 | |
| Dalapon | ND | 83 | 58 | 47 | 21.0 | | | | 40 - 140 | 30 | |
| Dicamba | ND | 83 | 68 | 63 | 7.6 | | | | 40 - 140 | 30 | |
| Dichloroprop | ND | 170 | 89 | 81 | 9.4 | | | | 40 - 140 | 30 | |
| Dinoseb | ND | 170 | 75 | 59 | 23.9 | | | | 40 - 140 | 30 | |
| % DCAA (Surrogate Rec) | 65 | % | 63 | 58 | 8.3 | | | | 30 - 150 | 30 | |

Comment:

The QC for this batch consists of a Blank, LCS, and LCSD. Spike recoveries for the MS and MSD could not be reported due to interference caused by the presence of non target compounds in the unspiked sample.

QA/QC Batch 439588 (ug/kg), QC Sample No: CA94225 (CA93605, CA93606)

## Semivolatiles - Sediment

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | 45 | 53 | 16.3 | 58 | 53 | 9.0 | 30 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 230 | 44 | 50 | 12.8 | 58 | 53 | 9.0 | 30 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 180 | 45 | 46 | 2.2 | 57 | 50 | 13.1 | 30 - 130 | 30 | |
| 1,2-Diphenylhydrazine | ND | 230 | 52 | 62 | 17.5 | 71 | 66 | 7.3 | 30 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 230 | 45 | 47 | 4.3 | 54 | 49 | 9.7 | 30 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 230 | 44 | 46 | 4.4 | 56 | 50 | 11.3 | 30 - 130 | 30 | |
| 2,4,5-Trichlorophenol | ND | 230 | 55 | 66 | 18.2 | 65 | 68 | 4.5 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,6-Trichlorophenol | ND | 130 | 52 | 63 | 19.1 | 64 | 59 | 8.1 | 30 - 130 | 30 | |
| 2,4-Dichlorophenol | ND | 130 | 50 | 59 | 16.5 | 62 | 60 | 3.3 | 30 - 130 | 30 | |
| 2,4-Dimethylphenol | ND | 230 | 55 | 60 | 8.7 | 70 | 63 | 10.5 | 30 - 130 | 30 | |
| 2,4-Dinitrophenol | ND | 230 | <10 | <10 | NC | 36 | 45 | 22.2 | 30 - 130 | 30 | l |
| 2,4-Dinitrotoluene | ND | 130 | 55 | 65 | 16.7 | 69 | 67 | 2.9 | 30 - 130 | 30 | |
| 2,6-Dinitrotoluene | ND | 130 | 56 | 64 | 13.3 | 70 | 65 | 7.4 | 30 - 130 | 30 | |
| 2-Chloronaphthalene | ND | 230 | 50 | 60 | 18.2 | 63 | 59 | 6.6 | 30 - 130 | 30 | |
| 2-Chlorophenol | ND | 230 | 49 | 54 | 9.7 | 63 | 56 | 11.8 | 30 - 130 | 30 | |
| 2-Methylnaphthalene | ND | 230 | 47 | 53 | 12.0 | 62 | 55 | 12.0 | 30 - 130 | 30 | |
| 2-Methylphenol (o-cresol) | ND | 230 | 56 | 60 | 6.9 | 70 | 66 | 5.9 | 30 - 130 | 30 | |
| 2-Nitroaniline | ND | 330 | 62 | 78 | 22.9 | 89 | 82 | 8.2 | 30 - 130 | 30 | |
| 2-Nitrophenol | ND | 230 | 52 | 61 | 15.9 | 64 | 61 | 4.8 | 30 - 130 | 30 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | 55 | 58 | 5.3 | 68 | 62 | 9.2 | 30 - 130 | 30 | |
| 3,3'-Dichlorobenzidine | ND | 130 | 53 | 63 | 17.2 | 79 | 76 | 3.9 | 30 - 130 | 30 | |
| 3-Nitroaniline | ND | 330 | 59 | 68 | 14.2 | 79 | 71 | 10.7 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 21 | 13 | 47.1 | 55 | 62 | 12.0 | 30 - 130 | 30 | l,r |
| 4-Bromophenyl phenyl ether | ND | 230 | 46 | 57 | 21.4 | 64 | 64 | 0.0 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | 57 | 64 | 11.6 | 71 | 71 | 0.0 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | 57 | 65 | 13.1 | 75 | 69 | 8.3 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | 51 | 59 | 14.5 | 67 | 61 | 9.4 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | 59 | 68 | 14.2 | 85 | 72 | 16.6 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | 57 | 68 | 17.6 | 71 | 69 | 2.9 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | 53 | 61 | 14.0 | 67 | 64 | 4.6 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | 47 | 57 | 19.2 | 64 | 58 | 9.8 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | 47 | 52 | 10.1 | 61 | 52 | 15.9 | 30 - 130 | 30 | |
| Aniline | ND | 330 | 43 | 48 | 11.0 | 61 | 56 | 8.5 | 30 - 130 | 30 | |
| Anthracene | ND | 230 | 51 | 59 | 14.5 | 64 | 61 | 4.8 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | 51 | 58 | 12.8 | 54 | 55 | 1.8 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | 39 | 42 | 7.4 | 45 | 49 | 8.5 | 30 - 130 | 30 | |
| Benzo(a)pyrene | ND | 130 | 50 | 57 | 13.1 | 54 | 50 | 7.7 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | 49 | 56 | 13.3 | 62 | 54 | 13.8 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | 47 | 56 | 17.5 | 55 | 54 | 1.8 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | 53 | 62 | 15.7 | 52 | 57 | 9.2 | 30 - 130 | 30 | |
| Benzoic Acid | ND | 330 | <10 | <10 | NC | 28 | 28 | 0.0 | 30 - 130 | 30 | l,m |
| Benzyl butyl phthalate | ND | 230 | 59 | 64 | 8.1 | 70 | 70 | 0.0 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | 51 | 57 | 11.1 | 63 | 58 | 8.3 | 30 - 130 | 30 | |
| Bis(2-chloroethyl)ether | ND | 130 | 46 | 47 | 2.2 | 58 | 51 | 12.8 | 30 - 130 | 30 | |
| Bis(2-chloroisopropyl)ether | ND | 230 | 45 | 48 | 6.5 | 58 | 50 | 14.8 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 57 | 65 | 13.1 | 63 | 62 | 1.6 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 52 | 64 | 20.7 | 68 | 65 | 4.5 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 54 | 57 | 5.4 | 55 | 55 | 0.0 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 54 | 59 | 8.8 | 65 | 63 | 3.1 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 50 | 61 | 19.8 | 64 | 62 | 3.2 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 53 | 65 | 20.3 | 68 | 62 | 9.2 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 51 | 64 | 22.6 | 66 | 63 | 4.7 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 670 | 56 | 69 | 20.8 | 72 | 67 | 7.2 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 61 | 69 | 12.3 | 77 | 72 | 6.7 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 51 | 59 | 14.5 | 46 | 43 | 6.7 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 51 | 60 | 16.2 | 66 | 63 | 4.7 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 55 | 68 | 21.1 | 73 | 69 | 5.6 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 48 | 49 | 2.1 | 61 | 51 | 17.9 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 50 | 51 | 2.0 | 42 | 40 | 4.9 | 30 - 130 | 30 | |
| Hexachloroethane | ND | 130 | 47 | 51 | 8.2 | 60 | 52 | 14.3 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA93605

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(1,2,3-cd)pyrene | ND | 230 | 49 | 57 | 15.1 | 54 | 52 | 3.8 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 48 | 56 | 15.4 | 60 | 56 | 6.9 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 47 | 53 | 12.0 | 60 | 55 | 8.7 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 52 | 59 | 12.6 | 67 | 60 | 11.0 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 44 | 45 | 2.2 | 57 | 47 | 19.2 | 30 - 130 | 30 | |
| N-Nitrosodi-n-propylamine | ND | 130 | 55 | 60 | 8.7 | 69 | 62 | 10.7 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 50 | 59 | 16.5 | 67 | 63 | 6.2 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 58 | 63 | 8.3 | 72 | 64 | 11.8 | 30 - 130 | 30 | |
| Pentachlorophenol | ND | 230 | 38 | 42 | 10.0 | 59 | 57 | 3.4 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 49 | 58 | 16.8 | 52 | 50 | 3.9 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 49 | 55 | 11.5 | 65 | 60 | 8.0 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 49 | 60 | 20.2 | 47 | 44 | 6.6 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 28 | 33 | 16.4 | 43 | 34 | 23.4 | 30 - 130 | 30 | l |
| % 2,4,6-Tribromophenol | 57 | % | 62 | 69 | 10.7 | 74 | 65 | 12.9 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 56 | % | 49 | 59 | 18.5 | 64 | 58 | 9.8 | 30 - 130 | 30 | |
| % 2-Fluorophenol | 50 | % | 46 | 51 | 10.3 | 59 | 51 | 14.5 | 30 - 130 | 30 | |
| % Nitrobenzene-d5 | 55 | % | 52 | 57 | 9.2 | 66 | 58 | 12.9 | 30 - 130 | 30 | |
| % Phenol-d5 | 56 | % | 52 | 58 | 10.9 | 66 | 58 | 12.9 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 56 | % | 51 | 62 | 19.5 | 59 | 53 | 10.7 | 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%)

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
July 23, 2018

Monday, July 23, 2018

Criteria: CT: GAM, GWP, RC, SWP

State: CT

# Sample Criteria Exceedances Report

## GCA93605 - DTECHDAS

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

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

# REASONABLE CONFIDENCE PROTOCOL
# LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

***Laboratory Name:*** Phoenix Environmental Labs, Inc. ***Client:*** Diversified Tech. Consultants

***Project Location:*** DOT NEWTOWN ***Project Number:***

***Laboratory Sample ID(s):*** CA93605, CA93606 ***Sampling Date(s):*** 7/18/2018

***List RCP Methods Used (e.g., 8260, 8270, et cetera)*** 6010, 7470/7471, 8082, 8151, 8260, 8270, ETPH

| | | |
|---|---|---|
| **1** | **For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?** | ☑ Yes ☐ No |
| **1A** | **Were the method specified preservation and holding time requirements met?** | ☑ Yes ☐ No |
| **1B** | ***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)** | ☐ Yes ☐ No ☑ NA |
| **2** | **Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?** | ☑ Yes ☐ No |
| **3** | **Were samples received at an appropriate temperature (< 6 Degrees C)?** | ☑ Yes ☐ No ☐ NA |
| **4** | **Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: PCB Narration, SVOA Narration, VOA Narration.** | ☐ Yes ☑ No |
| **5** | **a) Were reporting limits specified or referenced on the chain-of-custody?**<br>**b) Were these reporting limits met?** | ☑ Yes ☐ No<br>☑ Yes ☐ No |
| **6** | **For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?** | ☐ Yes ☑ No |
| **7** | **Are project-specific matrix spikes and laboratory duplicates included in the data set?** | ☐ Yes ☑ No |

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

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

**Authorized Signature:** Rashmi Makol **Position:** Project Manager

**Printed Name:** Rashmi Makol **Date:** Monday, July 23, 2018

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

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

July 23, 2018

SDG I.D.: GCA93605

## *SDG Comments*

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

## *ETPH Narration*

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

**Instrument:**

**AU-FID84 07/19/18-1** Jeff Bucko, Chemist 07/19/18

CA93606

The initial calibration (ETPH705I) 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: CA93606
Preceding CC 719A016 - Pentacosane 31%H (30%)
Succeeding CC 719A028 - Pentacosane 36%H (30%)

**AU-XL1 07/19/18-1** Jeff Bucko, Chemist 07/19/18

CA93605

The initial calibration (ETPH605I) 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 439591 (CA93630)**

CA93605, CA93606

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.

## *Herbicide Narration*

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

**Instrument:**

**AU-ECD12 07/20/18-1** Carol Wohlmuth, Chemist 07/20/18

CA93605, CA93606

The initial calibration (HRB705AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (HRB705BI) 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 439598 (CA94187)**

CA93605, CA93606

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

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# RCP Certification Report

July 23, 2018

SDG I.D.: GCA93605

## *Herbicide Narration*

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
The QC for this batch consists of a Blank, LCS, and LCSD. Spike recoveries for the MS and MSD could not be reported due to interference caused by the presence of non target compounds in the unspiked sample.

## *Mercury Narration*

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

**Instrument:**

**MERLIN 07/20/18 08:11** Rick Schweitzer, Chemist 07/20/18

CA93605, CA93606

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 439698 (CA94188)**

CA93605, CA93606

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%.

## *ICP Metals Narration*

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

**Instrument:**

**ARCOS 07/19/18 10:14** Emily Kolominskaya, Chemist 07/19/18

CA93605, CA93606

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.

**QC (Batch Specific):**

**Batch 439602 (CA93433)**

CA93605, CA93606

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# Certification Report

July 23, 2018

SDG I.D.: GCA93605

## *ICP Metals Narration*

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? No.

**QC Batch 439590 (Samples: CA93605, CA93606): -----**

**The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% DCBP (Surrogate Rec))**

### Instrument:

**AU-ECD3 07/19/18-1** Adam Werner, Chemist 07/19/18

CA93605, CA93606

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC605BI) 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 439590 (CA93883)**

CA93605, CA93606

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: % DCBP (Surrogate Rec)(37.0%)

## *SVOA Narration*

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

**QC Batch 439588 (Samples: CA93605, CA93606): -----**

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

**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. (Pyridine)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4,6-Dinitro-2-methylphenol)**

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

### Instrument:

**CHEM28 07/19/18-3** Matt Richard, Chemist 07/19/18

CA93605, CA93606

Initial Calibration Verification (CHEM28/SPLIT_0717):

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# RCP Certification Report

July 23, 2018

SDG I.D.: GCA93605

## *SVOA Narration*

92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 53% (20%), 4,6-Dinitro-2-methylphenol 36% (20%), Benzidine 24% (20%), Benzoic acid 36% (20%), Hexachlorocyclopentadiene 24% (20%), Pentachlorophenol 43% (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 (CHEM28/0719_32-SPLIT_0717):
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 439588 (CA94225)**

CA93605, CA93606

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(21%), Benzoic Acid(<10%), Pyridine(28%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(13%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(47.1%)
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 439719 (Samples: CA93606): -----**

**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. (2-Hexanone, Methyl ethyl ketone, Methylene chloride)**

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

**QC Batch 439968 (Samples: CA93605): -----**

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

### Instrument:

**CHEM03 07/19/18-2** Jane Li, Chemist 07/19/18

CA93606

Initial Calibration Verification (CHEM03/VT-L0714):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 26% (20%), Chloroethane 30% (20%), trans-1,4-dichloro-2-butene 23% (20%), Trichlorofluoromethane 22% (20%)
The following compounds did not meet recommended response factors: Tetrachloroethene 0.186 (0.2)

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# RCP Certification Report

July 23, 2018

SDG I.D.: GCA93605

## *VOA Narration*

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

Continuing Calibration Verification (CHEM03/0719L35-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Acetone 31%L (30%)
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.

**CHEM03 07/20/18-1** Jane Li, Chemist 07/20/18

CA93605

Initial Calibration Verification (CHEM03/VT-L0714):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 26% (20%), Chloroethane 30% (20%), trans-1,4-dichloro-2-butene 23% (20%), Trichlorofluoromethane 22% (20%)
The following compounds did not meet recommended response factors: Tetrachloroethene 0.186 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0720L02-VT-L0714):
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 439719 (CA93486)**

CA93606

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(61%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(66%), Acetone(54%), Methyl ethyl ketone(61%), Methylene chloride(68%)
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%.

**Batch 439968 (CA94060)**

CA93605

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(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.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

## *Temperature Narration*

The samples were received at 4.2C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]
Temp 4.2°C Pg 1 of 1

# CHAIN OF CUSTODY RECORD

**PHOENIX** *Environmental Laboratories, Inc.*

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

**Data Delivery/Contact Options:**
[ ] Fax:
[ ] Phone:
[X] Email: ethan.stewart@tetratech.com

Customer: DTC
Address: 2321 Whitney Ave. Hamden, CT
Project: DOT - Newtown
Report to: Ethan Stewart
Invoice to: DTC / DAS Pricing
Project P.O: 17-141-07

**This section MUST be completed with Bottle Quantities.**

Sampler's Signature: [signature] Date: 7/19/18

**Client Sample - Information - Identification**

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

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOCs 8260 | SVOCs 8270 | EtPH | PCBs 8082 | Total RCRA 8 | Chlorinated Herbicides | GL Amber 8 oz. w/H3PO4 | Soil VOA Vials [ ] methanol [X] H2O | GL Soil container ( 8 ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 936005 | Sed-1 | SE | 7/18 | 930 | x | x | x | x | x | x | | 3 | 4 | | | | | | | | | |
| 936006 | Sed-2 | ↓ | ↓ | 1130 | x | x | x | x | x | x | | 3 | 4 | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 7/19/18 | 1112 |
| [signature] | TRANSIT | 7/19/18 | 1320 |

**Comments, Special Requirements or Regulations:**
DAS Pricing

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

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

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

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

**State where samples were collected:** CT

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

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

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

**Wednesday, August 01, 2018**

**Attn: Mr. Ethan Stuart**
**Diversified Tech. Consultants**
**2321 Whitney Avenue 3rd floor**
**Hamden Center II**
**Hamden CT 06518**

**Project ID: 17-141-07X I-84 SOUTHBURY**
**Sample ID#s: CA97643 - CA97654**

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

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

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

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

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

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**UT Lab Registration #CT00007**
**VT Lab Registration #VT11301**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 9:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97643

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (2.5-5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | PS | SW6010C |
| Arsenic | 6.21 | 0.79 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 51.4 | 0.39 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.39 | 0.39 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 14.1 | 0.39 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 4.73 | 0.39 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.6 | 1.6 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 86 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 57 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 74 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

**Ver 1**

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (2.5-5 FT)

Phoenix I.D.: CA97643

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 51 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 67 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 23 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 23 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 230 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (2.5-5 FT)

Phoenix I.D.: CA97643

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 2.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 28 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 9.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 9.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 9.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 9.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (2.5-5 FT)

Phoenix I.D.: CA97643

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 390 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 390 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 770 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 390 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 390 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (2.5-5 FT)

Phoenix I.D.: CA97643

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 390 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 73 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 60 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 58 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 58 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 61 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 65 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

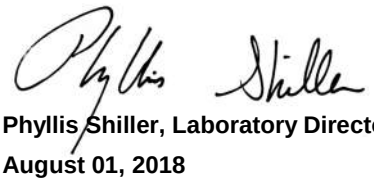
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 10:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97644

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (5-7.5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 6.76 | 0.76 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 48.2 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.38 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 19.2 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 4.97 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.5 | 1.5 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 86 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 56 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 71 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (5-7.5 FT)

Phoenix I.D.: CA97644

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 62 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 80 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 22 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 22 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 220 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 2.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 50 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 9.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 9.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 9.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 9.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 4.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 99 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 94 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 99 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |

## Semivolatiles

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (5-7.5 FT)

Phoenix I.D.: CA97644

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 770 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-1 (5-7.5 FT)

Phoenix I.D.: CA97644

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 80 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 59 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 58 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 57 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 61 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 69 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

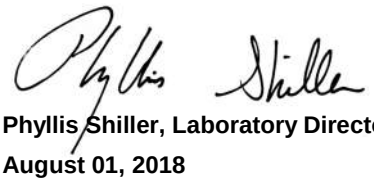
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 10:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97645

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (2.5-5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 4.60 | 0.66 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 30.8 | 0.33 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.33 | 0.33 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 11.5 | 0.33 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | 0.04 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 4.09 | 0.33 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.3 | 1.3 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 94 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | JJ/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 52 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 63 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (2.5-5 FT)

Phoenix I.D.: CA97645

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 350 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 72 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 88 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.6 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 21 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 21 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 210 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (2.5-5 FT)

Phoenix I.D.: CA97645

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 2.6 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 26 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 4.3 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 94 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (2.5-5 FT)

Phoenix I.D.: CA97645

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 350 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 350 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 700 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 350 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 350 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (2.5-5 FT)

Phoenix I.D.: CA97645

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 350 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 60 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 53 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 46 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 51 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 50 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 57 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

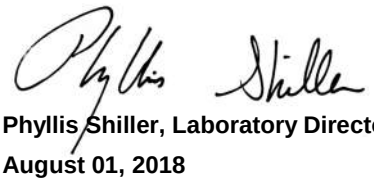
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 11:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97646

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (7.5-10 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 5.95 | 0.81 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 45.2 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.40 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 19.0 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 5.11 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.6 | 1.6 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 86 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 58 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 68 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (7.5-10 FT)

Phoenix I.D.: CA97646

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 60 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 70 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 270 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (7.5-10 FT)

Phoenix I.D.: CA97646

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 32 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |

## Semivolatiles

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (7.5-10 FT)

Phoenix I.D.: CA97646

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 760 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-2 (7.5-10 FT)

Phoenix I.D.: CA97646

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 67 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 50 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 50 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 51 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 51 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 64 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

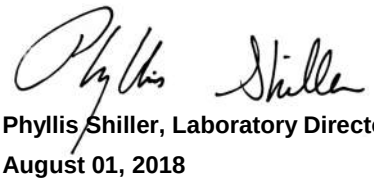
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 11:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97647

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (0-2.5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 3.98 | 0.72 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 62.8 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.36 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 12.2 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 7.99 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.4 | 1.4 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 91 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 270 | mg/Kg | 5 | 07/27/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 5 | 07/27/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 67 | | % | 5 | 07/27/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

**Ver 1**

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (0-2.5 FT)

Phoenix I.D.: CA97647

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 370 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 71 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 87 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 25 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 25 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 250 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 30 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 84 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (0-2.5 FT)

Phoenix I.D.: CA97647

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | 260 | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 720 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | 260 | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | 460 | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (0-2.5 FT)

Phoenix I.D.: CA97647

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | 390 | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 52 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 46 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 42 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 49 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 47 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 43 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

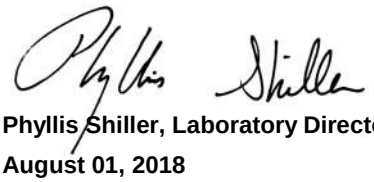
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 12:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97648

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (5-7.5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 1.00 | 0.72 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 101 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.36 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 17.8 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 5.59 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.4 | 1.4 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 97 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/30/18 | JJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | 800 | 500 | mg/Kg | 10 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ** | | mg/Kg | 10 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | Diluted Out | | % | 10 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (5-7.5 FT)

Phoenix I.D.: CA97648

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 340 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 76 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 92 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 270 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (5-7.5 FT)

Phoenix I.D.: CA97648

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 32 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 340 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 670 | ug/Kg | 50 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 50 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 97 | | % | 50 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 123 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 81 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 1,2-Dichlorobenzene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 1,3-Dichlorobenzene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 1,4-Dichlorobenzene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4,5-Trichlorophenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4-Dichlorophenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4-Dimethylphenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4-Dinitrophenol | ND | 290 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2-Chloronaphthalene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (5-7.5 FT)

Phoenix I.D.: CA97648

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2-Methylnaphthalene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 2-Nitrophenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 670 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 670 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Chloro-3-methylphenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| 4-Nitrophenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Acenaphthene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Acenaphthylene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Acetophenone | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Aniline | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Anthracene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benz(a)anthracene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzo(a)pyrene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzo(b)fluoranthene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzo(ghi)perylene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzo(k)fluoranthene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzoic acid | ND | 1300 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Benzyl butyl phthalate | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 420 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Bis(2-chloroethyl)ether | ND | 670 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Chrysene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Dibenz(a,h)anthracene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Diethyl phthalate | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Dimethylphthalate | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Di-n-butylphthalate | ND | 670 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Di-n-octylphthalate | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Fluoranthene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Fluorene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Hexachlorobenzene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Hexachlorocyclopentadiene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Hexachloroethane | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Isophorone | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Naphthalene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-3 (5-7.5 FT)

Phoenix I.D.: CA97648

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Pentachloronitrobenzene | ND | 130 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Pentachlorophenol | ND | 670 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Phenanthrene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Phenol | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Pyrene | ND | 470 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 2 | 07/31/18 | PS | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 52 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| % 2-Fluorobiphenyl | 41 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| % 2-Fluorophenol | 44 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| % Nitrobenzene-d5 | 51 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| % Phenol-d5 | 54 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| % Terphenyl-d14 | 49 | | % | 2 | 07/31/18 | PS | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

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

## Comments:

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

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C24 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

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

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

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

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

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


**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 12:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97649

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (2.5-5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | PS | SW6010C |
| Arsenic | 5.94 | 0.80 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 53.8 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.40 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 16.4 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 23.6 | 0.40 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.6 | 1.6 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 88 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 56 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 71 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (2.5-5 FT)

Phoenix I.D.: CA97649

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 64 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 83 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 27 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 270 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (2.5-5 FT)

Phoenix I.D.: CA97649

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 32 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 11 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.4 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 94 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 99 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (2.5-5 FT)

Phoenix I.D.: CA97649

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 760 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (2.5-5 FT)

Phoenix I.D.: CA97649

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 70 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 56 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 51 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 63 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 61 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 58 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

## Comments:

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

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

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

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

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


**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 13:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97650

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (5-7.5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | PS | SW6010C |
| Arsenic | 6.58 | 0.68 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 32.9 | 0.34 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.34 | 0.34 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 12.0 | 0.34 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 10.5 | 0.34 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.4 | 1.4 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 87 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 57 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 74 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1221 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1232 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1242 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1248 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1254 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (5-7.5 FT)

Phoenix I.D.: CA97650

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1262 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| PCB-1268 | ND | 380 | ug/Kg | 10 | 07/27/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 63 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| % TCMX | 76 | | % | 10 | 07/27/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.9 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 24 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 24 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 240 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (5-7.5 FT)

Phoenix I.D.: CA97650

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 2.9 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 29 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 9.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 9.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 9.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 9.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 4.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 90 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (5-7.5 FT)

Phoenix I.D.: CA97650

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 760 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-4 (5-7.5 FT)

Phoenix I.D.: CA97650

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference | |
|---|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Pentachlorophenol | ND | 380 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Phenanthrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Phenol | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Pyrene | ND | 270 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D | |
| **QA/QC Surrogates** | | | | | | | | |
| % 2,4,6-Tribromophenol | 38 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | |
| % 2-Fluorobiphenyl | 46 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | |
| % 2-Fluorophenol | 29 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | 3 |
| % Nitrobenzene-d5 | 53 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | |
| % Phenol-d5 | 52 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | |
| % Terphenyl-d14 | 45 | | % | 1 | 07/26/18 | KCA | 30 - 130 % | |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A | |

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 one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

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

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

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


**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 13:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97651

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (0-2.5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 3.30 | 0.74 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 100 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.37 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 22.3 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 6.28 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.5 | 1.5 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 90 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 55 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 76 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1221 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1232 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1242 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1248 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1254 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |

**Ver 1**

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (0-2.5 FT)

Phoenix I.D.: CA97651

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1262 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1268 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 59 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| % TCMX | 57 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 7.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 43 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 43 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 430 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | 13 | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (0-2.5 FT)

Phoenix I.D.: CA97651

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 51 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 17 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 17 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 17 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 17 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 8.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 93 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 94 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (0-2.5 FT)

Phoenix I.D.: CA97651

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 720 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (0-2.5 FT)

Phoenix I.D.: CA97651

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 77 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 61 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 53 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 56 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 59 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 62 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

## Comments:

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

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

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

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

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


**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 14:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97652

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (7.5-10 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 5.73 | 0.72 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 25.2 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.36 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 8.89 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 3.78 | 0.36 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.4 | 1.4 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 95 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 51 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 76 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1221 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1232 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1242 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1248 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1254 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (7.5-10 FT)

Phoenix I.D.: CA97652

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1262 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1268 | ND | 340 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 70 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| % TCMX | 71 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 26 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 26 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 260 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (7.5-10 FT)

Phoenix I.D.: CA97652

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 31 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 96 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (7.5-10 FT)

Phoenix I.D.: CA97652

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 340 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 340 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 690 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 340 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 340 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-5 (7.5-10 FT)

Phoenix I.D.: CA97652

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 340 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 240 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 83 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 69 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 64 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 66 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 71 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 73 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

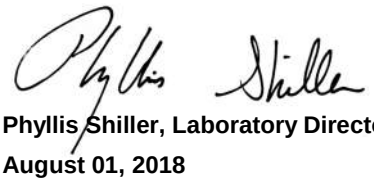
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 14:30 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97653

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (2.5-5 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 3.60 | 0.75 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 89.6 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.38 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 22.1 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 4.15 | 0.38 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.5 | 1.5 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 91 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 53 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 75 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1221 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1232 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1242 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1248 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1254 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (2.5-5 FT)

Phoenix I.D.: CA97653

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1262 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1268 | ND | 350 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 79 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| % TCMX | 76 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 3.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 26 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 26 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 260 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.1 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 31 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 10 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 5.2 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (2.5-5 FT)

Phoenix I.D.: CA97653

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 720 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (2.5-5 FT)

Phoenix I.D.: CA97653

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 58 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 47 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 42 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 47 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 45 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 51 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

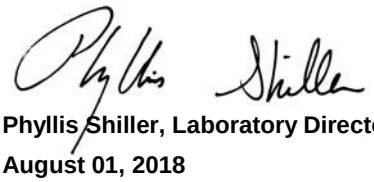
## Comments:

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

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

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

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

**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 01, 2018

FOR: Attn: Mr. Ethan Stuart
Diversified Tech. Consultants
2321 Whitney Avenue 3rd floor
Hamden Center II
Hamden CT 06518

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/24/18 | 15:00 |
| Location Code: | DTECHDAS | Received by: | LB | 07/25/18 | 15:12 |
| Rush Request: | 72 Hour | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA97643
Phoenix ID: CA97654

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (7.5-10 FT)

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 3.9 | 3.9 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Arsenic | 4.86 | 0.73 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Barium | 81.0 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Cadmium | < 0.37 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Chromium | 19.1 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Mercury | < 0.03 | 0.03 | mg/Kg | 1 | 07/26/18 | RS | SW7471B |
| Lead | 4.11 | 0.37 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Selenium | < 1.5 | 1.5 | mg/Kg | 1 | 07/26/18 | EK | SW6010C |
| Percent Solid | 91 | | % | | 07/26/18 | q | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 07/25/18 | AA/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 07/25/18 | NTJ/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 07/25/18 | JJ/VCK | SW3545A |
| Mercury Digestion | Completed | | | | 07/26/18 | I/I | SW7471B |
| Total Metals Digest | Completed | | | | 07/25/18 | L/AG | SW3050B |
| **TPH by GC (Extractable Products)** | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 54 | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 07/26/18 | JRB | CTETPH 8015D |
| **QA/QC Surrogates** | | | | | | | |
| % n-Pentacosane | 77 | | % | 1 | 07/26/18 | JRB | 50 - 150 % |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1221 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1232 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1242 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1248 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1254 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |

**Ver 1**

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (7.5-10 FT)

Phoenix I.D.: CA97654

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1260 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1262 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| PCB-1268 | ND | 360 | ug/Kg | 10 | 07/26/18 | AW | SW8082A |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 76 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| % TCMX | 73 | | % | 10 | 07/26/18 | AW | 30 - 150 % |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane | ND | 2.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,1-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dibromoethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,2-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,3-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 1,4-Dichlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2,2-Dichloropropane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Chlorotoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Hexanone | ND | 24 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 2-Isopropyltoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Chlorotoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| 4-Methyl-2-pentanone | ND | 24 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acetone | ND | 240 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Acrylonitrile | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Benzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromochloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromodichloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromoform | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Bromomethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon Disulfide | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Carbon tetrachloride | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chlorobenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloroform | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Chloromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,2-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| cis-1,3-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (7.5-10 FT)

Phoenix I.D.: CA97654

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 2.8 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dibromomethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Dichlorodifluoromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Ethylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Hexachlorobutadiene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Isopropylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| m&p-Xylene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl Ethyl Ketone | ND | 28 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methyl t-butyl ether (MTBE) | ND | 9.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Methylene chloride | ND | 9.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Naphthalene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| n-Propylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| o-Xylene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| p-Isopropyltoluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| sec-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Styrene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| tert-Butylbenzene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrachloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Tetrahydrofuran (THF) | ND | 9.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Toluene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Total Xylenes | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,2-Dichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,3-Dichloropropene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| trans-1,4-dichloro-2-butene | ND | 9.5 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichloroethene | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorofluoromethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Trichlorotrifluoroethane | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| Vinyl chloride | ND | 4.7 | ug/Kg | 1 | 07/26/18 | JLI | SW8260C |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 97 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Bromofluorobenzene | 98 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Dibromofluoromethane | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| % Toluene-d8 | 95 | | % | 1 | 07/26/18 | JLI | 70 - 130 % |
| **Semivolatiles** | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 100 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,2-Diphenylhydrazine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,5-Trichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4,6-Trichlorophenol | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dichlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dimethylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrophenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,4-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2,6-Dinitrotoluene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (7.5-10 FT)

Phoenix I.D.: CA97654

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 2-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 3-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloro-3-methylphenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chloroaniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitroaniline | ND | 300 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| 4-Nitrophenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acenaphthylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Acetophenone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Aniline | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benz(a)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzidine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(a)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzoic acid | ND | 720 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroethyl)ether | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Carbazole | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Chrysene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenz(a,h)anthracene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dibenzofuran | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Diethyl phthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Dimethylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-butylphthalate | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluoranthene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Fluorene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobenzene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorobutadiene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Hexachloroethane | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Isophorone | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Naphthalene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |

Project ID: 17-141-07X I-84 SOUTHBURY
Client ID: B-6 (7.5-10 FT)

Phoenix I.D.: CA97654

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Nitrobenzene | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodimethylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| N-Nitrosodiphenylamine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachloronitrobenzene | ND | 140 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pentachlorophenol | ND | 360 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenanthrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Phenol | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyrene | ND | 250 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| Pyridine | ND | 200 | ug/Kg | 1 | 07/26/18 | KCA | SW8270D |
| **QA/QC Surrogates** | | | | | | | |
| % 2,4,6-Tribromophenol | 48 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorobiphenyl | 52 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % 2-Fluorophenol | 47 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 60 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Phenol-d5 | 59 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 60 | | % | 1 | 07/26/18 | KCA | 30 - 130 % |
| Field Extraction | Completed | | | | 07/24/18 | | SW5035A |

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

## Comments:

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

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

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

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


**Phyllis Shiller, Laboratory Director**
**August 01, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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# QA/QC Report

August 01, 2018

## QA/QC Data

SDG I.D.: GCA97643

| 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 440443 (mg/kg), QC Sample No: CA97179 (CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649) | | | | | | | | | | | | | |
| Mercury - Soil | BRL | 0.02 | 0.04 | <0.03 | NC | 93.1 | 86.8 | 7.0 | 74.5 | | | 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 440366 (mg/kg), QC Sample No: CA97643 (CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654) | | | | | | | | | | | | | |
| ICP Metals - Soil | | | | | | | | | | | | | |
| Arsenic | BRL | 0.70 | 6.21 | 5.71 | 8.40 | 98.0 | | | 85.7 | | | 75 - 125 | 30 |
| Barium | BRL | 0.35 | 51.4 | 46.2 | 10.7 | 101 | | | 94.1 | | | 75 - 125 | 30 |
| Cadmium | BRL | 0.35 | <0.39 | <0.38 | NC | 91.2 | | | 87.0 | | | 75 - 125 | 30 |
| Chromium | BRL | 0.35 | 14.1 | 13.1 | 7.40 | 105 | | | 91.6 | | | 75 - 125 | 30 |
| Lead | BRL | 0.35 | 4.73 | 3.68 | 25.0 | 95.1 | | | 88.5 | | | 75 - 125 | 30 |
| Selenium | BRL | 1.4 | <1.6 | <1.5 | NC | 107 | | | 75.4 | | | 75 - 125 | 30 |
| Silver | BRL | 0.35 | <3.9 | <0.38 | NC | 100 | | | 84.7 | | | 75 - 125 | 30 |
| QA/QC Batch 440444 (mg/kg), QC Sample No: CA97652 (CA97650, CA97651, CA97652, CA97653, CA97654) | | | | | | | | | | | | | |
| Mercury - Soil | BRL | 0.03 | <0.03 | <0.03 | NC | 77.8 | 86.5 | 10.6 | 95.1 | | | 70 - 130 | 30 |
| Comment: | | | | | | | | | | | | | |
| Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%. | | | | | | | | | | | | | |

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# QA/QC Report

August 01, 2018

## QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 440297 (ug/Kg), QC Sample No: CA96856 2X (CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653) | | | | | | | | | | |
| **Polychlorinated Biphenyls - Soil** | | | | | | | | | | |
| PCB-1016 | ND | 33 | | | | 71 | 91 | 24.7 | 40 - 140 | 30 |
| PCB-1221 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1232 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1242 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1248 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1254 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1260 | ND | 33 | | | | 71 | 93 | 26.8 | 40 - 140 | 30 |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 |
| % DCBP (Surrogate Rec) | 85 | % | | | | 84 | 97 | 14.4 | 30 - 150 | 30 |
| % TCMX (Surrogate Rec) | 92 | % | | | | 86 | 100 | 15.1 | 30 - 150 | 30 |
| Comment: | | | | | | | | | | |
| This batch only consists of a Blank, MS and MSD | | | | | | | | | | |
| QA/QC Batch 440489 (ug/kg), QC Sample No: CA97179 (CA97643, CA97644, CA97645, CA97646, CA97647, CA97648 (50X) , CA97649, CA97650, CA97651) | | | | | | | | | | |
| **Volatiles - Soil** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 102 | 101 | 1.0 | 95 | 93 | 2.1 | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 5.0 | 99 | 102 | 3.0 | 94 | 90 | 4.3 | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 107 | 109 | 1.9 | 110 | 110 | 0.0 | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 5.0 | 102 | 102 | 0.0 | 96 | 94 | 2.1 | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 5.0 | 106 | 106 | 0.0 | 98 | 97 | 1.0 | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 5.0 | 106 | 105 | 0.9 | 98 | 95 | 3.1 | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 5.0 | 102 | 102 | 0.0 | 96 | 95 | 1.0 | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 108 | 107 | 0.9 | 100 | 104 | 3.9 | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 5.0 | 102 | 106 | 3.8 | 109 | 107 | 1.9 | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 106 | 102 | 3.8 | 97 | 101 | 4.0 | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 101 | 99 | 2.0 | 96 | 94 | 2.1 | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 107 | 109 | 1.9 | 95 | 96 | 1.0 | 70 - 130 | 30 |
| 1,2-Dibromoethane | ND | 5.0 | 101 | 104 | 2.9 | 98 | 93 | 5.2 | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 5.0 | 102 | 102 | 0.0 | 89 | 86 | 3.4 | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 5.0 | 102 | 104 | 1.9 | 100 | 96 | 4.1 | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 5.0 | 103 | 102 | 1.0 | 98 | 97 | 1.0 | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 100 | 98 | 2.0 | 98 | 95 | 3.1 | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 5.0 | 102 | 102 | 0.0 | 92 | 89 | 3.3 | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 5.0 | 101 | 101 | 0.0 | 100 | 96 | 4.1 | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 5.0 | 101 | 100 | 1.0 | 90 | 88 | 2.2 | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 5.0 | 103 | 102 | 1.0 | 92 | 89 | 3.3 | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 5.0 | 102 | 100 | 2.0 | 99 | 98 | 1.0 | 70 - 130 | 30 |
| 2-Hexanone | ND | 25 | 99 | 102 | 3.0 | 92 | 93 | 1.1 | 70 - 130 | 30 |
| 2-Isopropyltoluene | ND | 5.0 | 105 | 105 | 0.0 | 98 | 96 | 2.1 | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | 5.0 | 101 | 98 | 3.0 | 98 | 94 | 4.2 | 70 - 130 | 30 | |
| 4-Methyl-2-pentanone | ND | 25 | 103 | 105 | 1.9 | 80 | 74 | 7.8 | 70 - 130 | 30 | |
| Acetone | ND | 10 | 86 | 90 | 4.5 | 68 | 66 | 3.0 | 70 - 130 | 30 | m |
| Acrylonitrile | ND | 5.0 | 99 | 103 | 4.0 | 86 | 87 | 1.2 | 70 - 130 | 30 | |
| Benzene | ND | 1.0 | 103 | 102 | 1.0 | 96 | 96 | 0.0 | 70 - 130 | 30 | |
| Bromobenzene | ND | 5.0 | 102 | 102 | 0.0 | 102 | 99 | 3.0 | 70 - 130 | 30 | |
| Bromochloromethane | ND | 5.0 | 103 | 104 | 1.0 | 96 | 94 | 2.1 | 70 - 130 | 30 | |
| Bromodichloromethane | ND | 5.0 | 101 | 104 | 2.9 | 95 | 92 | 3.2 | 70 - 130 | 30 | |
| Bromoform | ND | 5.0 | 104 | 105 | 1.0 | 85 | 80 | 6.1 | 70 - 130 | 30 | |
| Bromomethane | ND | 5.0 | 109 | 105 | 3.7 | 87 | 88 | 1.1 | 70 - 130 | 30 | |
| Carbon Disulfide | ND | 5.0 | 111 | 110 | 0.9 | 95 | 95 | 0.0 | 70 - 130 | 30 | |
| Carbon tetrachloride | ND | 5.0 | 99 | 98 | 1.0 | 87 | 86 | 1.2 | 70 - 130 | 30 | |
| Chlorobenzene | ND | 5.0 | 101 | 101 | 0.0 | 94 | 91 | 3.2 | 70 - 130 | 30 | |
| Chloroethane | ND | 5.0 | 107 | 103 | 3.8 | 99 | 97 | 2.0 | 70 - 130 | 30 | |
| Chloroform | ND | 5.0 | 100 | 98 | 2.0 | 93 | 89 | 4.4 | 70 - 130 | 30 | |
| Chloromethane | ND | 5.0 | 100 | 99 | 1.0 | 88 | 86 | 2.3 | 70 - 130 | 30 | |
| cis-1,2-Dichloroethene | ND | 5.0 | 103 | 103 | 0.0 | 94 | 95 | 1.1 | 70 - 130 | 30 | |
| cis-1,3-Dichloropropene | ND | 5.0 | 105 | 105 | 0.0 | 83 | 82 | 1.2 | 70 - 130 | 30 | |
| Dibromochloromethane | ND | 3.0 | 104 | 108 | 3.8 | 98 | 93 | 5.2 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 102 | 106 | 3.8 | 99 | 96 | 3.1 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 106 | 106 | 0.0 | 91 | 92 | 1.1 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 100 | 100 | 0.0 | 94 | 92 | 2.2 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 104 | 102 | 1.9 | 105 | 108 | 2.8 | 70 - 130 | 30 | |
| Isopropylbenzene | ND | 1.0 | 100 | 99 | 1.0 | 103 | 102 | 1.0 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 97 | 97 | 0.0 | 92 | 89 | 3.3 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 107 | 106 | 0.9 | 99 | 98 | 1.0 | 70 - 130 | 30 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 101 | 105 | 3.9 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 103 | 102 | 1.0 | 92 | 93 | 1.1 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 112 | 114 | 1.8 | 102 | 108 | 5.7 | 70 - 130 | 30 | |
| n-Butylbenzene | ND | 1.0 | 103 | 102 | 1.0 | 87 | 87 | 0.0 | 70 - 130 | 30 | |
| n-Propylbenzene | ND | 1.0 | 100 | 100 | 0.0 | 100 | 99 | 1.0 | 70 - 130 | 30 | |
| o-Xylene | ND | 2.0 | 100 | 101 | 1.0 | 93 | 91 | 2.2 | 70 - 130 | 30 | |
| p-Isopropyltoluene | ND | 1.0 | 102 | 100 | 2.0 | 91 | 91 | 0.0 | 70 - 130 | 30 | |
| sec-Butylbenzene | ND | 1.0 | 102 | 102 | 0.0 | 97 | 97 | 0.0 | 70 - 130 | 30 | |
| Styrene | ND | 5.0 | 100 | 100 | 0.0 | 87 | 83 | 4.7 | 70 - 130 | 30 | |
| tert-Butylbenzene | ND | 1.0 | 99 | 98 | 1.0 | 97 | 96 | 1.0 | 70 - 130 | 30 | |
| Tetrachloroethene | ND | 5.0 | 102 | 103 | 1.0 | 93 | 91 | 2.2 | 70 - 130 | 30 | |
| Tetrahydrofuran (THF) | ND | 5.0 | 105 | 107 | 1.9 | 103 | 101 | 2.0 | 70 - 130 | 30 | |
| Toluene | ND | 1.0 | 104 | 102 | 1.9 | 96 | 94 | 2.1 | 70 - 130 | 30 | |
| trans-1,2-Dichloroethene | ND | 5.0 | 111 | 103 | 7.5 | 106 | 105 | 0.9 | 70 - 130 | 30 | |
| trans-1,3-Dichloropropene | ND | 5.0 | 100 | 98 | 2.0 | 83 | 81 | 2.4 | 70 - 130 | 30 | |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 110 | 112 | 1.8 | 80 | 95 | 17.1 | 70 - 130 | 30 | |
| Trichloroethene | ND | 5.0 | 102 | 102 | 0.0 | 97 | 95 | 2.1 | 70 - 130 | 30 | |
| Trichlorofluoromethane | ND | 5.0 | 98 | 96 | 2.1 | 91 | 92 | 1.1 | 70 - 130 | 30 | |
| Trichlorotrifluoroethane | ND | 5.0 | 109 | 104 | 4.7 | 99 | 97 | 2.0 | 70 - 130 | 30 | |
| Vinyl chloride | ND | 5.0 | 106 | 106 | 0.0 | 97 | 95 | 2.1 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 97 | % | 102 | 101 | 1.0 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 98 | % | 101 | 100 | 1.0 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 101 | % | 103 | 100 | 3.0 | 98 | 95 | 3.1 | 70 - 130 | 30 | |
| % Toluene-d8 | 96 | % | 103 | 101 | 2.0 | 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 Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 440298 (mg/Kg), QC Sample No: CA97182 (CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654) | | | | | | | | | | |
| **TPH by GC (Extractable Products) - Soil** | | | | | | | | | | |
| Ext. Petroleum H.C. (C9-C36) | ND | 50 | 75 | 71 | 5.5 | 87 | 91 | 4.5 | 60 - 120 | 30 |
| % n-Pentacosane | 66 | % | 66 | 64 | 3.1 | 83 | 83 | 0.0 | 50 - 150 | 30 |
| Comment: | | | | | | | | | | |
| Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration. | | | | | | | | | | |
| QA/QC Batch 440689 (ug/kg), QC Sample No: CA97652 (CA97648, CA97652, CA97653, CA97654) | | | | | | | | | | |
| **Volatiles - Soil** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 96 | 97 | 1.0 | 95 | 94 | 1.1 | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | ND | 5.0 | 93 | 93 | 0.0 | 97 | 94 | 3.1 | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | 3.0 | 102 | 104 | 1.9 | 107 | 104 | 2.8 | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | ND | 5.0 | 97 | 98 | 1.0 | 97 | 96 | 1.0 | 70 - 130 | 30 |
| 1,1-Dichloroethane | ND | 5.0 | 98 | 99 | 1.0 | 101 | 98 | 3.0 | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 5.0 | 101 | 100 | 1.0 | 102 | 100 | 2.0 | 70 - 130 | 30 |
| 1,1-Dichloropropene | ND | 5.0 | 99 | 98 | 1.0 | 99 | 98 | 1.0 | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 104 | 103 | 1.0 | 71 | 78 | 9.4 | 70 - 130 | 30 |
| 1,2,3-Trichloropropane | ND | 5.0 | 97 | 100 | 3.0 | 105 | 103 | 1.9 | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 102 | 101 | 1.0 | 74 | 78 | 5.3 | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 96 | 97 | 1.0 | 95 | 95 | 0.0 | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 5.0 | 95 | 99 | 4.1 | 96 | 95 | 1.0 | 70 - 130 | 30 |
| 1,2-Dibromoethane | ND | 5.0 | 99 | 97 | 2.0 | 96 | 96 | 0.0 | 70 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 5.0 | 99 | 98 | 1.0 | 92 | 92 | 0.0 | 70 - 130 | 30 |
| 1,2-Dichloroethane | ND | 5.0 | 101 | 101 | 0.0 | 101 | 100 | 1.0 | 70 - 130 | 30 |
| 1,2-Dichloropropane | ND | 5.0 | 98 | 101 | 3.0 | 96 | 98 | 2.1 | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | 96 | 96 | 0.0 | 96 | 95 | 1.0 | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 5.0 | 99 | 99 | 0.0 | 92 | 92 | 0.0 | 70 - 130 | 30 |
| 1,3-Dichloropropane | ND | 5.0 | 98 | 99 | 1.0 | 97 | 97 | 0.0 | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 5.0 | 98 | 98 | 0.0 | 91 | 91 | 0.0 | 70 - 130 | 30 |
| 2,2-Dichloropropane | ND | 5.0 | 94 | 96 | 2.1 | 93 | 90 | 3.3 | 70 - 130 | 30 |
| 2-Chlorotoluene | ND | 5.0 | 98 | 98 | 0.0 | 98 | 95 | 3.1 | 70 - 130 | 30 |
| 2-Hexanone | ND | 25 | 97 | 98 | 1.0 | 93 | 94 | 1.1 | 70 - 130 | 30 |
| 2-Isopropyltoluene | ND | 5.0 | 100 | 102 | 2.0 | 99 | 99 | 0.0 | 70 - 130 | 30 |
| 4-Chlorotoluene | ND | 5.0 | 97 | 98 | 1.0 | 95 | 94 | 1.1 | 70 - 130 | 30 |
| 4-Methyl-2-pentanone | ND | 25 | 101 | 97 | 4.0 | 100 | 101 | 1.0 | 70 - 130 | 30 |
| Acetone | ND | 10 | 84 | 81 | 3.6 | 81 | 78 | 3.8 | 70 - 130 | 30 |
| Acrylonitrile | ND | 5.0 | 92 | 92 | 0.0 | 93 | 94 | 1.1 | 70 - 130 | 30 |
| Benzene | ND | 1.0 | 98 | 98 | 0.0 | 98 | 97 | 1.0 | 70 - 130 | 30 |
| Bromobenzene | ND | 5.0 | 98 | 99 | 1.0 | 99 | 96 | 3.1 | 70 - 130 | 30 |
| Bromochloromethane | ND | 5.0 | 96 | 96 | 0.0 | 95 | 96 | 1.0 | 70 - 130 | 30 |
| Bromodichloromethane | ND | 5.0 | 97 | 98 | 1.0 | 94 | 96 | 2.1 | 70 - 130 | 30 |
| Bromoform | ND | 5.0 | 94 | 94 | 0.0 | 88 | 90 | 2.2 | 70 - 130 | 30 |
| Bromomethane | ND | 5.0 | 102 | 106 | 3.8 | 104 | 104 | 0.0 | 70 - 130 | 30 |
| Carbon Disulfide | ND | 5.0 | 105 | 102 | 2.9 | 102 | 99 | 3.0 | 70 - 130 | 30 |
| Carbon tetrachloride | ND | 5.0 | 90 | 89 | 1.1 | 89 | 88 | 1.1 | 70 - 130 | 30 |
| Chlorobenzene | ND | 5.0 | 99 | 98 | 1.0 | 96 | 96 | 0.0 | 70 - 130 | 30 |
| Chloroethane | ND | 5.0 | 100 | 101 | 1.0 | 101 | 101 | 0.0 | 70 - 130 | 30 |
| Chloroform | ND | 5.0 | 92 | 92 | 0.0 | 93 | 93 | 0.0 | 70 - 130 | 30 |
| Chloromethane | ND | 5.0 | 94 | 94 | 0.0 | 88 | 87 | 1.1 | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | ND | 5.0 | 95 | 96 | 1.0 | 96 | 97 | 1.0 | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | ND | 5.0 | 101 | 99 | 2.0 | 96 | 96 | 0.0 | 70 - 130 | 30 |

# QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 3.0 | 99 | 98 | 1.0 | 96 | 96 | 0.0 | 70 - 130 | 30 | |
| Dibromomethane | ND | 5.0 | 99 | 97 | 2.0 | 98 | 99 | 1.0 | 70 - 130 | 30 | |
| Dichlorodifluoromethane | ND | 5.0 | 101 | 98 | 3.0 | 93 | 91 | 2.2 | 70 - 130 | 30 | |
| Ethylbenzene | ND | 1.0 | 98 | 96 | 2.1 | 97 | 96 | 1.0 | 70 - 130 | 30 | |
| Hexachlorobutadiene | ND | 5.0 | 97 | 94 | 3.1 | 75 | 78 | 3.9 | 70 - 130 | 30 | |
| Isopropylbenzene | ND | 1.0 | 96 | 97 | 1.0 | 99 | 96 | 3.1 | 70 - 130 | 30 | |
| m&p-Xylene | ND | 2.0 | 96 | 95 | 1.0 | 94 | 93 | 1.1 | 70 - 130 | 30 | |
| Methyl ethyl ketone | ND | 5.0 | 100 | 96 | 4.1 | 96 | 95 | 1.0 | 70 - 130 | 30 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | 97 | 95 | 2.1 | 95 | 94 | 1.1 | 70 - 130 | 30 | |
| Methylene chloride | ND | 5.0 | 96 | 96 | 0.0 | 100 | 98 | 2.0 | 70 - 130 | 30 | |
| Naphthalene | ND | 5.0 | 108 | 108 | 0.0 | 83 | 87 | 4.7 | 70 - 130 | 30 | |
| n-Butylbenzene | ND | 1.0 | 102 | 100 | 2.0 | 92 | 93 | 1.1 | 70 - 130 | 30 | |
| n-Propylbenzene | ND | 1.0 | 96 | 96 | 0.0 | 97 | 96 | 1.0 | 70 - 130 | 30 | |
| o-Xylene | ND | 2.0 | 97 | 97 | 0.0 | 95 | 95 | 0.0 | 70 - 130 | 30 | |
| p-Isopropyltoluene | ND | 1.0 | 99 | 98 | 1.0 | 95 | 94 | 1.1 | 70 - 130 | 30 | |
| sec-Butylbenzene | ND | 1.0 | 99 | 99 | 0.0 | 97 | 97 | 0.0 | 70 - 130 | 30 | |
| Styrene | ND | 5.0 | 99 | 98 | 1.0 | 94 | 94 | 0.0 | 70 - 130 | 30 | |
| tert-Butylbenzene | ND | 1.0 | 93 | 94 | 1.1 | 96 | 93 | 3.2 | 70 - 130 | 30 | |
| Tetrachloroethene | ND | 5.0 | 99 | 96 | 3.1 | 97 | 98 | 1.0 | 70 - 130 | 30 | |
| Tetrahydrofuran (THF) | ND | 5.0 | 102 | 102 | 0.0 | 99 | 101 | 2.0 | 70 - 130 | 30 | |
| Toluene | ND | 1.0 | 99 | 99 | 0.0 | 99 | 98 | 1.0 | 70 - 130 | 30 | |
| trans-1,2-Dichloroethene | ND | 5.0 | 102 | 109 | 6.6 | 108 | 107 | 0.9 | 70 - 130 | 30 | |
| trans-1,3-Dichloropropene | ND | 5.0 | 95 | 93 | 2.1 | 88 | 90 | 2.2 | 70 - 130 | 30 | |
| trans-1,4-dichloro-2-butene | ND | 5.0 | 102 | 103 | 1.0 | 99 | 98 | 1.0 | 70 - 130 | 30 | |
| Trichloroethene | ND | 5.0 | 100 | 97 | 3.0 | 99 | 97 | 2.0 | 70 - 130 | 30 | |
| Trichlorofluoromethane | ND | 5.0 | 97 | 92 | 5.3 | 96 | 94 | 2.1 | 70 - 130 | 30 | |
| Trichlorotrifluoroethane | ND | 5.0 | 105 | 97 | 7.9 | 104 | 103 | 1.0 | 70 - 130 | 30 | |
| Vinyl chloride | ND | 5.0 | 101 | 101 | 0.0 | 100 | 98 | 2.0 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 99 | % | 98 | 101 | 3.0 | 99 | 101 | 2.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 97 | % | 100 | 100 | 0.0 | 99 | 100 | 1.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 98 | % | 94 | 97 | 3.1 | 94 | 96 | 2.1 | 70 - 130 | 30 | |
| % Toluene-d8 | 96 | % | 103 | 102 | 1.0 | 102 | 101 | 1.0 | 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 440295 (ug/kg), QC Sample No: CA97652 (CA97643, CA97644, CA97645, CA97646, CA97647, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654)

## Semivolatiles - Soil

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | 58 | 58 | 0.0 | 62 | 61 | 1.6 | 30 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 230 | 58 | 60 | 3.4 | 60 | 61 | 1.7 | 30 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 180 | 53 | 58 | 9.0 | 57 | 58 | 1.7 | 30 - 130 | 30 | |
| 1,2-Diphenylhydrazine | ND | 230 | 67 | 63 | 6.2 | 71 | 68 | 4.3 | 30 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 230 | 49 | 53 | 7.8 | 54 | 55 | 1.8 | 30 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 230 | 50 | 55 | 9.5 | 53 | 55 | 3.7 | 30 - 130 | 30 | |
| 2,4,5-Trichlorophenol | ND | 230 | 79 | 73 | 7.9 | 84 | 80 | 4.9 | 30 - 130 | 30 | |
| 2,4,6-Trichlorophenol | ND | 130 | 76 | 72 | 5.4 | 75 | 77 | 2.6 | 30 - 130 | 30 | |
| 2,4-Dichlorophenol | ND | 130 | 67 | 65 | 3.0 | 71 | 67 | 5.8 | 30 - 130 | 30 | |
| 2,4-Dimethylphenol | ND | 230 | 70 | 68 | 2.9 | 70 | 69 | 1.4 | 30 - 130 | 30 | |
| 2,4-Dinitrophenol | ND | 230 | 19 | <10 | NC | 24 | 20 | 18.2 | 30 - 130 | 30 | l,m |
| 2,4-Dinitrotoluene | ND | 130 | 75 | 69 | 8.3 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| 2,6-Dinitrotoluene | ND | 130 | 73 | 69 | 5.6 | 75 | 71 | 5.5 | 30 - 130 | 30 | |
| 2-Chloronaphthalene | ND | 230 | 70 | 68 | 2.9 | 73 | 71 | 2.8 | 30 - 130 | 30 | |
| 2-Chlorophenol | ND | 230 | 63 | 67 | 6.2 | 66 | 67 | 1.5 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 230 | 57 | 57 | 0.0 | 62 | 59 | 5.0 | 30 - 130 | 30 | |
| 2-Methylphenol (o-cresol) | ND | 230 | 69 | 71 | 2.9 | 72 | 68 | 5.7 | 30 - 130 | 30 | |
| 2-Nitroaniline | ND | 330 | 112 | 104 | 7.4 | 120 | 118 | 1.7 | 30 - 130 | 30 | |
| 2-Nitrophenol | ND | 230 | 65 | 69 | 6.0 | 69 | 67 | 2.9 | 30 - 130 | 30 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | 71 | 73 | 2.8 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| 3,3'-Dichlorobenzidine | ND | 130 | 66 | 65 | 1.5 | 75 | 76 | 1.3 | 30 - 130 | 30 | |
| 3-Nitroaniline | ND | 330 | 89 | 87 | 2.3 | 96 | 92 | 4.3 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 47 | 28 | 50.7 | 44 | 41 | 7.1 | 30 - 130 | 30 | l,r |
| 4-Bromophenyl phenyl ether | ND | 230 | 74 | 70 | 5.6 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | 70 | 67 | 4.4 | 75 | 73 | 2.7 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | 58 | 61 | 5.0 | 68 | 67 | 1.5 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | 71 | 68 | 4.3 | 75 | 71 | 5.5 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | 76 | 71 | 6.8 | 78 | 77 | 1.3 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | 71 | 64 | 10.4 | 74 | 66 | 11.4 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | 74 | 71 | 4.1 | 75 | 73 | 2.7 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | 67 | 63 | 6.2 | 67 | 67 | 0.0 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | 55 | 59 | 7.0 | 61 | 61 | 0.0 | 30 - 130 | 30 | |
| Aniline | ND | 330 | 44 | 52 | 16.7 | 53 | 54 | 1.9 | 30 - 130 | 30 | |
| Anthracene | ND | 230 | 70 | 68 | 2.9 | 75 | 73 | 2.7 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | 70 | 68 | 2.9 | 76 | 72 | 5.4 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | 49 | 42 | 15.4 | 41 | 48 | 15.7 | 30 - 130 | 30 | |
| Benzo(a)pyrene | ND | 130 | 68 | 67 | 1.5 | 73 | 69 | 5.6 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | 73 | 71 | 2.8 | 81 | 79 | 2.5 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | 70 | 67 | 4.4 | 72 | 71 | 1.4 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | 79 | 77 | 2.6 | 81 | 76 | 6.4 | 30 - 130 | 30 | |
| Benzoic Acid | ND | 330 | <10 | <10 | NC | 21 | 18 | 15.4 | 30 - 130 | 30 | l,m |
| Benzyl butyl phthalate | ND | 230 | 73 | 71 | 2.8 | 81 | 77 | 5.1 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | 64 | 65 | 1.6 | 70 | 67 | 4.4 | 30 - 130 | 30 | |
| Bis(2-chloroethyl)ether | ND | 130 | 55 | 56 | 1.8 | 61 | 59 | 3.3 | 30 - 130 | 30 | |
| Bis(2-chloroisopropyl)ether | ND | 230 | 48 | 55 | 13.6 | 54 | 54 | 0.0 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 77 | 73 | 5.3 | 81 | 79 | 2.5 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 72 | 70 | 2.8 | 78 | 77 | 1.3 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 73 | 70 | 4.2 | 77 | 73 | 5.3 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 73 | 70 | 4.2 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 68 | 66 | 3.0 | 71 | 71 | 0.0 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 73 | 68 | 7.1 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 73 | 71 | 2.8 | 77 | 74 | 4.0 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 670 | 78 | 75 | 3.9 | 81 | 80 | 1.2 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 80 | 75 | 6.5 | 85 | 80 | 6.1 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 71 | 70 | 1.4 | 79 | 76 | 3.9 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 69 | 68 | 1.5 | 74 | 71 | 4.1 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 71 | 69 | 2.9 | 76 | 75 | 1.3 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 56 | 59 | 5.2 | 61 | 61 | 0.0 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 58 | 61 | 5.0 | 68 | 61 | 10.9 | 30 - 130 | 30 | |
| Hexachloroethane | ND | 130 | 51 | 55 | 7.5 | 54 | 57 | 5.4 | 30 - 130 | 30 | |
| Indeno(1,2,3-cd)pyrene | ND | 230 | 71 | 67 | 5.8 | 73 | 71 | 2.8 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 56 | 57 | 1.8 | 60 | 59 | 1.7 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 55 | 57 | 3.6 | 60 | 60 | 0.0 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 62 | 67 | 7.8 | 66 | 68 | 3.0 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 54 | 58 | 7.1 | 58 | 59 | 1.7 | 30 - 130 | 30 | |
| N-Nitrosodi-n-propylamine | ND | 130 | 68 | 75 | 9.8 | 75 | 72 | 4.1 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 75 | 69 | 8.3 | 78 | 74 | 5.3 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 66 | 66 | 0.0 | 75 | 68 | 9.8 | 30 - 130 | 30 | |

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pentachlorophenol | ND | 230 | 70 | 56 | 22.2 | 82 | 69 | 17.2 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 70 | 68 | 2.9 | 75 | 72 | 4.1 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 65 | 70 | 7.4 | 71 | 68 | 4.3 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 75 | 71 | 5.5 | 79 | 77 | 2.6 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 37 | 41 | 10.3 | 39 | 42 | 7.4 | 30 - 130 | 30 | |
| % 2,4,6-Tribromophenol | 73 | % | 77 | 73 | 5.3 | 82 | 79 | 3.7 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 55 | % | 63 | 60 | 4.9 | 63 | 62 | 1.6 | 30 - 130 | 30 | |
| % 2-Fluorophenol | 50 | % | 58 | 62 | 6.7 | 60 | 62 | 3.3 | 30 - 130 | 30 | |
| % Nitrobenzene-d5 | 49 | % | 57 | 59 | 3.4 | 59 | 61 | 3.3 | 30 - 130 | 30 | |
| % Phenol-d5 | 53 | % | 65 | 68 | 4.5 | 69 | 68 | 1.5 | 30 - 130 | 30 | |
| % Terphenyl-d14 | 66 | % | 65 | 62 | 4.7 | 69 | 67 | 2.9 | 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 440268 (ug/Kg), QC Sample No: CA97800 2X (CA97654)

## Polychlorinated Biphenyls - Soil

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 33 | 85 | 81 | 4.8 | 57 | 75 | 27.3 | 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 | 82 | 81 | 1.2 | 58 | 79 | 30.7 | 40 - 140 | 30 | r |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 | |
| % DCBP (Surrogate Rec) | 68 | % | 84 | 79 | 6.1 | 62 | 76 | 20.3 | 30 - 150 | 30 | |
| % TCMX (Surrogate Rec) | 83 | % | 98 | 86 | 13.0 | 65 | 76 | 15.6 | 30 - 150 | 30 | |

QA/QC Batch 440906 (ug/kg), QC Sample No: CB00505 (CA97648)

## Semivolatiles - Soil

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | 60 | 58 | 3.4 | 55 | 57 | 3.6 | 30 - 130 | 30 | |
| 1,2,4-Trichlorobenzene | ND | 230 | 60 | 60 | 0.0 | 59 | 58 | 1.7 | 30 - 130 | 30 | |
| 1,2-Dichlorobenzene | ND | 180 | 57 | 55 | 3.6 | 55 | 55 | 0.0 | 30 - 130 | 30 | |
| 1,2-Diphenylhydrazine | ND | 230 | 62 | 60 | 3.3 | 59 | 57 | 3.4 | 30 - 130 | 30 | |
| 1,3-Dichlorobenzene | ND | 230 | 53 | 50 | 5.8 | 50 | 50 | 0.0 | 30 - 130 | 30 | |
| 1,4-Dichlorobenzene | ND | 230 | 54 | 52 | 3.8 | 52 | 51 | 1.9 | 30 - 130 | 30 | |
| 2,4,5-Trichlorophenol | ND | 230 | 83 | 79 | 4.9 | 75 | 75 | 0.0 | 30 - 130 | 30 | |
| 2,4,6-Trichlorophenol | ND | 130 | 75 | 72 | 4.1 | 68 | 68 | 0.0 | 30 - 130 | 30 | |
| 2,4-Dichlorophenol | ND | 130 | 69 | 66 | 4.4 | 63 | 61 | 3.2 | 30 - 130 | 30 | |
| 2,4-Dimethylphenol | ND | 230 | 71 | 68 | 4.3 | 65 | 64 | 1.6 | 30 - 130 | 30 | |
| 2,4-Dinitrophenol | ND | 230 | 11 | <10 | NC | 58 | 45 | 25.2 | 30 - 130 | 30 | l |
| 2,4-Dinitrotoluene | ND | 130 | 71 | 69 | 2.9 | 64 | 62 | 3.2 | 30 - 130 | 30 | |
| 2,6-Dinitrotoluene | ND | 130 | 71 | 70 | 1.4 | 63 | 62 | 1.6 | 30 - 130 | 30 | |
| 2-Chloronaphthalene | ND | 230 | 70 | 70 | 0.0 | 68 | 68 | 0.0 | 30 - 130 | 30 | |
| 2-Chlorophenol | ND | 230 | 65 | 60 | 8.0 | 57 | 58 | 1.7 | 30 - 130 | 30 | |
| 2-Methylnaphthalene | ND | 230 | 61 | 59 | 3.3 | 58 | 57 | 1.7 | 30 - 130 | 30 | |
| 2-Methylphenol (o-cresol) | ND | 230 | 70 | 67 | 4.4 | 59 | 60 | 1.7 | 30 - 130 | 30 | |
| 2-Nitroaniline | ND | 330 | 106 | 100 | 5.8 | 88 | 90 | 2.2 | 30 - 130 | 30 | |
| 2-Nitrophenol | ND | 230 | 71 | 67 | 5.8 | 65 | 66 | 1.5 | 30 - 130 | 30 | |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | 76 | 69 | 9.7 | 61 | 63 | 3.2 | 30 - 130 | 30 | |
| 3,3'-Dichlorobenzidine | ND | 130 | 71 | 67 | 5.8 | 62 | 58 | 6.7 | 30 - 130 | 30 | |
| 3-Nitroaniline | ND | 330 | 87 | 84 | 3.5 | 74 | 74 | 0.0 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 36 | 23 | 44.1 | 63 | 53 | 17.2 | 30 - 130 | 30 | l,r |

# QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Bromophenyl phenyl ether | ND | 230 | 70 | 66 | 5.9 | 64 | 64 | 0.0 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | 75 | 72 | 4.1 | 67 | 67 | 0.0 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | 69 | 64 | 7.5 | 55 | 58 | 5.3 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | 67 | 65 | 3.0 | 61 | 60 | 1.7 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | 74 | 71 | 4.1 | 65 | 65 | 0.0 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | 86 | 82 | 4.8 | 75 | 71 | 5.5 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | 75 | 72 | 4.1 | 67 | 68 | 1.5 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | 66 | 63 | 4.7 | 61 | 60 | 1.7 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | 59 | 56 | 5.2 | 51 | 52 | 1.9 | 30 - 130 | 30 | |
| Aniline | ND | 330 | 47 | 47 | 0.0 | 44 | 54 | 20.4 | 30 - 130 | 30 | |
| Anthracene | ND | 230 | 68 | 65 | 4.5 | 61 | 60 | 1.7 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | 64 | 60 | 6.5 | 58 | 56 | 3.5 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | 49 | 48 | 2.1 | 20 | 10 | 66.7 | 30 - 130 | 30 | m,r |
| Benzo(a)pyrene | ND | 130 | 66 | 62 | 6.3 | 57 | 56 | 1.8 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | 69 | 66 | 4.4 | 67 | 63 | 6.2 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | 66 | 63 | 4.7 | 63 | 60 | 4.9 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | 72 | 71 | 1.4 | 60 | 64 | 6.5 | 30 - 130 | 30 | |
| Benzoic Acid | ND | 330 | <10 | <10 | NC | 60 | 68 | 12.5 | 30 - 130 | 30 | l |
| Benzyl butyl phthalate | ND | 230 | 69 | 65 | 6.0 | 61 | 58 | 5.0 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | 69 | 65 | 6.0 | 61 | 62 | 1.6 | 30 - 130 | 30 | |
| Bis(2-chloroethyl)ether | ND | 130 | 83 | 82 | 1.2 | 77 | 82 | 6.3 | 30 - 130 | 30 | |
| Bis(2-chloroisopropyl)ether | ND | 230 | 62 | 58 | 6.7 | 56 | 54 | 3.6 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 72 | 69 | 4.3 | 64 | 61 | 4.8 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 70 | 66 | 5.9 | 60 | 58 | 3.4 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 66 | 63 | 4.7 | 60 | 57 | 5.1 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 73 | 70 | 4.2 | 65 | 67 | 3.0 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 66 | 64 | 3.1 | 61 | 60 | 1.7 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 71 | 70 | 1.4 | 63 | 62 | 1.6 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 71 | 69 | 2.9 | 64 | 62 | 3.2 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 670 | 77 | 74 | 4.0 | 63 | 60 | 4.9 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 77 | 73 | 5.3 | 69 | 63 | 9.1 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 70 | 66 | 5.9 | 59 | 56 | 5.2 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 67 | 65 | 3.0 | 60 | 60 | 0.0 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 70 | 67 | 4.4 | 61 | 62 | 1.6 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 62 | 61 | 1.6 | 61 | 60 | 1.7 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 65 | 64 | 1.6 | 65 | 53 | 20.3 | 30 - 130 | 30 | |
| Hexachloroethane | ND | 130 | 58 | 55 | 5.3 | 53 | 53 | 0.0 | 30 - 130 | 30 | |
| Indeno(1,2,3-cd)pyrene | ND | 230 | 67 | 64 | 4.6 | 64 | 61 | 4.8 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 60 | 58 | 3.4 | 54 | 55 | 1.8 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 61 | 60 | 1.7 | 57 | 58 | 1.7 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 66 | 61 | 7.9 | 58 | 61 | 5.0 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 57 | 55 | 3.6 | 50 | 49 | 2.0 | 30 - 130 | 30 | |
| N-Nitrosodi-n-propylamine | ND | 130 | 74 | 68 | 8.5 | 63 | 65 | 3.1 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 72 | 71 | 1.4 | 65 | 63 | 3.1 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 62 | 61 | 1.6 | 58 | 56 | 3.5 | 30 - 130 | 30 | |
| Pentachlorophenol | ND | 230 | 80 | 70 | 13.3 | 74 | 71 | 4.1 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 67 | 64 | 4.6 | 63 | 60 | 4.9 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 67 | 63 | 6.2 | 57 | 57 | 0.0 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 71 | 67 | 5.8 | 62 | 59 | 5.0 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 36 | 35 | 2.8 | 35 | 34 | 2.9 | 30 - 130 | 30 | |
| % 2,4,6-Tribromophenol | 65 | % | 75 | 69 | 8.3 | 73 | 65 | 11.6 | 30 - 130 | 30 | |
| % 2-Fluorobiphenyl | 55 | % | 63 | 62 | 1.6 | 58 | 58 | 0.0 | 30 - 130 | 30 | |
| % 2-Fluorophenol | 48 | % | 58 | 56 | 3.5 | 52 | 53 | 1.9 | 30 - 130 | 30 | |

# QA/QC Data

SDG I.D.: GCA97643

| Parameter | Blank | Blk RL | | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|
| % Nitrobenzene-d5 | 47 | % | | 59 | 55 | 7.0 | 53 | 54 | 1.9 | 30 - 130 | 30 |
| % Phenol-d5 | 49 | % | | 69 | 64 | 7.5 | 59 | 61 | 3.3 | 30 - 130 | 30 |
| % Terphenyl-d14 | 56 | % | | 63 | 59 | 6.6 | 52 | 49 | 5.9 | 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%)

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
August 01, 2018

Wednesday, August 01, 2018

Criteria: CT: GAM, RC

State: CT

# Sample Criteria Exceedances Report

## GCA97643 - DTECHDAS

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CA97648 | $ETPH_SMR | Ext. Petroleum H.C. (C9-C36) | CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH | 800 | 500 | 500 | 500 | mg/Kg |
| CA97648 | $ETPH_SMR | Ext. Petroleum H.C. (C9-C36) | CT / RSR GA,GAA (mg/kg) / Pesticides/TPH | 800 | 500 | 500 | 500 | mg/Kg |

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

# REASONABLE CONFIDENCE PROTOCOL
# LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

***Laboratory Name:*** Phoenix Environmental Labs, Inc. ***Client:*** Diversified Tech. Consultants

***Project Location:*** 17-141-07X I-84 SOUTHBURY ***Project Number:***

***Laboratory Sample ID(s):*** CA97643-CA97654 ***Sampling Date(s):*** 7/24/2018

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

| | | |
|---|---|---|
| **1** | **For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?** | ☑ Yes ☐ No |
| **1A** | **Were the method specified preservation and holding time requirements met?** | ☑ Yes ☐ No |
| **1B** | ***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)** | ☐ Yes ☐ No ☑ NA |
| **2** | **Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?** | ☑ Yes ☐ No |
| **3** | **Were samples received at an appropriate temperature (< 6 Degrees C)?** | ☑ Yes ☐ No ☐ NA |
| **4** | **Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: PCB Narration, SVOA Narration.** | ☐ Yes ☑ No |
| **5** | **a) Were reporting limits specified or referenced on the chain-of-custody?**<br>**b) Were these reporting limits met?** | ☑ Yes ☐ No<br>☑ Yes ☐ No |
| **6** | **For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?** | ☐ Yes ☑ No |
| **7** | **Are project-specific matrix spikes and laboratory duplicates included in the data set?** | ☑ Yes ☐ No |

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

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

**Authorized Signature:** Rashmi Makol **Position:** Project Manager

**Printed Name:** Rashmi Makol **Date:** Wednesday, August 01, 2018

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

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *SDG Comments*

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

## *ETPH Narration*

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

**Instrument:**

**AU-FID1 07/26/18-1** Jeff Bucko, Chemist 07/26/18

CA97648

The initial calibration (ETPH723I) 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-FID1 07/27/18-1** Jeff Bucko, Chemist 07/27/18

CA97647

The initial calibration (ETPH723I) 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 07/25/18-1** Jeff Bucko, Chemist 07/25/18

CA97650

The initial calibration (ETPH627I) 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-FID22 07/25/18-1** Jeff Bucko, Chemist 07/25/18

CA97643, CA97644, CA97645, CA97646

The initial calibration (ETPH621I) 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 07/25/18-1** Jeff Bucko, Chemist 07/25/18

CA97649, CA97651, CA97652, CA97653, CA97654

The initial calibration (ETPH605I) 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 440298 (CA97182)**

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

## *Mercury Narration*

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

**Instrument:**

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *Mercury Narration*

**MERLIN 07/26/18 08:08** Rick Schweitzer, Chemist 07/26/18

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654

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 440443 (CA97179)**

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649

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%.

### QC (Site Specific):

**Batch 440444 (CA97652)**

CA97650, CA97651, CA97652, CA97653, CA97654

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

## *ICP Metals Narration*

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

### Instrument:

**ARCOS 07/26/18 11:51** Emily Kolominskaya, Phyllis Shiller, Chemist 07/26/18

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654

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.

### QC (Site Specific):

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

NY # 11301

# Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *ICP Metals Narration*

**Batch 440366 (CA97643)**

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654

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 440268 (Samples: CA97654): -----**

**The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (PCB-1260)**

### Instrument:

**AU-ECD29 07/26/18-1** Adam Werner, Chemist 07/26/18

CA97651, CA97652, CA97653, CA97654

The initial calibration (PC705AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC705BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

**AU-ECD3 07/26/18-1** Adam Werner, Chemist 07/26/18

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC605BI) 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 440268 (CA97800)**

CA97654

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*

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *SVOA Narration*

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

**QC Batch 440295 (Samples: CA97643, CA97644, CA97645, CA97646, CA97647, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654): -----**

**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)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4,6-Dinitro-2-methylphenol)**

**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 440906 (Samples: CA97648): -----**

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

**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)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4,6-Dinitro-2-methylphenol)**

**Instrument:**

**CHEM19 07/25/18-1** Matt Richard, Chemist 07/25/18

CA97643, CA97644, CA97645, CA97646, CA97652

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

Initial Calibration Verification (CHEM19/SPLIT_0725):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 43% (20%), Benzidine 24% (20%), Pentachlorophenol 22% (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 (CHEM19/0725_14-SPLIT_0725):
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: N-Nitrosodimethylamine 36%L (30%), Pyridine 33%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: Bis(2-chloroethyl)ether 0.645 (0.7)
The following compounds did not meet minimum response factors: None.

**CHEM19 07/26/18-1** Keith Aloisa, Chemist 07/26/18

CA97647, CA97649, CA97650, CA97651, CA97653, CA97654

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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NY # 11301

# RCP Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *SVOA Narration*

Initial Calibration Verification (CHEM19/SPLIT_0725):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 43% (20%), Benzidine 24% (20%), Pentachlorophenol 22% (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 (CHEM19/0726_02-SPLIT_0725):
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: Aniline 40%L (30%), N-Nitrosodimethylamine 43%L (30%), Pyridine 38%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 43%L (40%)
The following compounds did not meet recommended response factors: Hexachlorobenzene 0.095 (0.1)
The following compounds did not meet minimum response factors: None.

**CHEM27 07/31/18-1** Harry Mullin, Chemist 07/31/18

CA97648

Initial Calibration Verification (CHEM27/SPLIT_0726):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 34% (20%), 4,6-Dinitro-2-methylphenol 21% (20%), Benzidine 24% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Hexachlorobenzene 0.086 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/0731_04-SPLIT_0726):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Pentachlorophenol 33%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1), Hexachlorobenzene 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

### QC (Batch Specific):

**Batch 440906 (CB00505)**

CA97648

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(23%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(44.1%)
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 440295 (CA97652)**

CA97643, CA97644, CA97645, CA97646, CA97647, CA97649, CA97650, CA97651, CA97652, CA97653, CA97654

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *SVOA Narration*

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(19%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(28%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(50.7%)
All MS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(24%), Benzoic Acid(21%)
All MSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(20%), Benzoic Acid(18%)
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

## *VOA Narration*

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

**Instrument:**

**CHEM14 07/25/18-2** Jane Li, Chemist 07/25/18

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651

Initial Calibration Verification (CHEM14/VT-0725):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 23% (20%)
The following compounds did not meet recommended response factors: Acetone 0.070 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0725_15-VT-0725):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

**CHEM14 07/26/18-1** Jane Li, Chemist 07/26/18

CA97648, CA97652, CA97653, CA97654

Initial Calibration Verification (CHEM14/VT-0725):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 23% (20%)
The following compounds did not meet recommended response factors: Acetone 0.070 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0726_02-VT-0725):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

August 01, 2018

SDG I.D.: GCA97643

## *VOA Narration*

### QC (Batch Specific):

**Batch 440489 (CA97179)**

CA97643, CA97644, CA97645, CA97646, CA97647, CA97648, CA97649, CA97650, CA97651

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%.

### QC (Site Specific):

**Batch 440689 (CA97652)**

CA97648, CA97652, CA97653, CA97654

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: None.
All MSD recoveries were within 70 - 130 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

## *Temperature Narration*

The samples were received at 5.0C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

# CHAIN OF CUSTODY RECORD

Temp 5.0 °C Pg of

**PHOENIX** *Environmental Laboratories, Inc.*

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

**Data Delivery/Contact Options:**
☐ Fax:
☐ Phone:
☒ Email: Ethan.Stuart@tetratech.com

Customer: DTC
Address: 2321 Whitney Ave
Suite 361
Hamden CT 06518

Project: 17-141-07X I84 Southbury/Newtown Project P.O: Das Pricing
Report to: Ethan Stuart
Invoice to: DTC

***This section MUST be completed with Bottle Quantities.***

Sampler's Signature: [signature] Date: 7/24/18

**Client Sample - Information - Identification**

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

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOCs 8260/5035 | SVOCs 8270 | E-TPH | PCBs 8082 | RCRA 8 Metals | GL Amber 8 oz. w/H3PO4 | Soil VOA Vials 1 methanol 2 H2O | GL Soil container ( 8 ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 971643 | B-1 (2.5'-5') | S | 7/24/18 | 930 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971644 | B-1 (5-7.5') | | | 1000 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971645 | B-2 (2.5-5') | | | 1030 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971646 | B-2 (7.5-10') | | | 1100 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971647 | B-3 (0-2.5') | | | 1130 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971648 | B-3 (5-7.5') | | | 1200 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971649 | B-4 (2.5-5') | | | 1230 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971650 | B-4 (5-7.5') | | | 1300 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971651 | B-5 (0-2.5') | | | 1330 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971652 | B-5 (7.5-10') | | | 1400 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971653 | B-6 (2.5-5') | | | 1430 | X | X | X | X | X | | X | X | | | | | | | | | |
| 971654 | B-6 (7.5-10') | | | 1500 | X | X | X | X | X | | X | X | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 7/25/18 | 1337 |
| [signature] | T. Brown | 7/25/18 | 15:12 |

**Comments, Special Requirements or Regulations:**
I-84 Southbury / Newtown 17-141-07X

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

**RI**
☐ Direct Exposure (Residential)
☐ GW
☐ Other

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

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

**State where samples were collected:** CT

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

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