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DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
REMEDIATION DIVISION
LEAKING UNDERGROUND STORAGE TANK COORDINATION PROGRAM
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Part I: Program Type (Select either Remediation or LUST as your Primary Program Type)

☒ Remediation	☐ LUST
Primary Program: Voluntary Remediation Program	UST Facility ID: (if applicable)
*Rem ID: 12390 (required)	Spill Case Number: (if known)

Part II: Site Information

Site Name: Former Rockville Manufactured Gas Plant
Site Address: 13 Maple Street
City/Town: Rockville, Vernon State: CT Zip Code: 06066

Secondary Programs (complete as many as applicable for this document):

Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:
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Provide Project ID for each secondary program if it is known.
Each program has a unique ID (i.e. Rem ID, Spill Case #, UST Facility ID, PCB File #, etc.)

Part III: Document Information

Remediation - Annual Report
Date of Document: 1/2/2018

Part IV: Submitter Information

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Name of company/business this document is being submitted on behalf of: CL&P dbaEversource Energy

Tighe&Bond
Engineers | Environmental Specialists

14-0755-044
January 2, 2018

Mr. Robert Robinson, District Supervisor
Remediation Division
Bureau of Water Protection and Land Reuse
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

WATER PROTECTION AND LAND REUSE
JAN 02 2018
REMEDIATION DIVISION

Re: **2017 Annual Report**
Former Rockville Manufactured Gas Plant
Rockville, Vernon, Connecticut
REM ID No. 12390

Dear Mr. Robinson:

Tighe & Bond, Inc. (Tighe & Bond), on behalf of The Connecticut Light and Power Company (CL&P) dba Eversource Energy (Eversource), submits the 2017 Annual Report for the investigation and remediation at the Former Manufactured Gas Plant (MGP) located in the Rockville section of Vernon, Connecticut. Site location is provided in Figure 1. This letter provides the annual update for the Voluntary Remediation Program (VRP) activities for the Rockville Former MGP site that were completed during the 2017 Calendar Year.

Significant progress was made to assess the nature and extent of the former Rockville MGP site impacts during 2017. Site activities completed in 2017 included the preparation and issuance of the Phase I Environmental Site Assessment (ESA) Report, implementation of a Phase III ESA field program at on-site and off-site properties and completion of a water supply well receptor survey.

The following 2017 Annual Report includes a brief summary of site background, activities completed during 2017, summary of Phase III ESA data, water supply well receptor survey findings, summary of Phase III ESA data gaps, and an updated VRP schedule.

If you have any questions or comments, please contact Jim Olsen, LEP at 860-704-4761 or at JTOlsen@tighebond.com or Lynn Willey, LEP at 860-852-5214 or at LEWilley@tighebond.com.

Very truly yours,

TIGHE & BOND, INC.

James T. Olsen, LEP
Vice President

Lynn E. Willey, LEP
Senior Environmental Scientist

Cover Letter

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Section 1
Background

Eversource entered the Voluntary Remediation Program (VRP), pursuant to Connecticut General Statutes (CGS) 22a-133x, on September 2, 2015 by submitting an Environmental Condition Assessment Form (ECAF) and fee to the Connecticut Department of Energy and Environmental Protection (CTDEEP). The site is designated a Licensed Environmental Professional (LEP)-lead site.

Eversource has assigned the LEP verification of the Rockville MGP site to Tighe & Bond of Middletown, Connecticut. The following will be the LEP for this project:

James T. Olsen, LEP (#178)
Tighe & Bond, Inc.,
213 Court Street, Suite 1100
Middletown, CT 06457

1.1 Site History and Description

The MGP operated from 1863 until the mid-1930s when gas production ceased. The site was acquired by The Connecticut Light & Power (CL&P in 1935 and later converted to exclusive use as an electrical substation, as it remains today.

The site is 3.43 acres in size and is bounded by the St. Joseph Church parking lot and residential properties to the north, Maple Street and residential properties to the east, West Main Street to the south, and residential properties with frontage on West Street (Route 527) to the west. Site location is provided in Figure 1 (Appendix A). The Hockanum River transverses the southern portion of the site from the southeastern corner intersection at West Main Street westward to West Street. A tributary to the Hockanum River flows from westward from two outfalls at Maple Street.

The site is currently developed as Eversource Substation 14W enclosed by a gated and locked fence limiting access to authorized personnel. Figure 2 provides the current layout of the site. The site consisted of an Inner Substation area which includes the active electrical substation infrastructure (i.e., high voltage power lines, towers, transformers, and electrical control houses. Subsurface electrical power supply ducts and grounding grid are located beneath a crushed gravel cover inside the Inner Substation. Access to the Inner Substation is restricted by Eversource and requires specialized training prior to entry and procedures to be completed during work.

The remainder of the site is referred to as the Outer Substation area which includes all areas outside the Inner Substation (Figure 2). The Outer Substation includes a grassed area surrounding the eastern and northern sides of the substation. A fenced area with the rectangular-shaped high-pressure gas control house located on the western portion of the Outer Substation Area. The Hockanum River is located in the Outer Substation and abuts the Inner Substation. Wooded and overgrown areas are located on the northern portion of the site adjacent to the St. Joseph Church paved parking lot and along the southern portion of the site between the Hockanum River and West Main Street.

Groundwater beneath the site and adjacent properties has been classified as GB by CTDEEP which indicates that groundwater is within a historically highly urbanized area or

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

The Hockanum River is classified as B meaning it is only suitable for recreational purposes, industrial process and cooling, and fish and wildlife habitat.

1.2 Regulatory Criteria

Analytical results discussed in this report were compared to remediation criteria listed in the CTDEEP Remediation Standard Regulations (RSRs) (January 1996, Amended June 2013). The 2013 RSRs do not provide soil and groundwater criteria for all substances detected at the Site. Criteria for the Additional Polluting Substances detected at the site that are listed in the data summary tables of this report were obtained from "Table 10: DEEP Recommended Criteria Values for Common Additional Polluting Substances and Alternative Criteria Requests, dated December 10, 2015".

CTDEEP's intent in developing the RSRs was to define the following:

- Minimum remediation performance standards
- Specific numeric clean-up criteria
- A process for establishing alternative site-specific standards, if warranted

The RSRs apply to efforts to remediate contaminated soil, surface water, soil vapors, or a groundwater plume at or emanating from a release area or AOC, provided the remedial action is required by the following:

- CGS Chapter 445 (Hazardous Waste, Section 22a-134, the PTA), or Chapter 446K (Water Pollution Control), or CGS Section 22a-208a(C)(2); or
- Relevant subsections of CGS 22a-133 (Voluntary Clean-up) including but not limited, any such action required to be taken or verified by a LEP, except as otherwise provided in the regulations.

The site is enrolled in the VRP; as such, the RSRs apply to the assessment work conducted at the site.

1.2.1 Soil Criteria

The CTDEEP soil remediation criteria integrates two risk-based goals: (1) the Direct Exposure Criteria (DEC) to protect human health from risks associated with direct exposure to contaminated soil; and (2) the Pollutant Mobility Criteria (PMC) to protect groundwater quality from contaminants that could potentially migrate or leach from soil to groundwater.

Direct Exposure Criteria

Specific numeric exposure criteria for a broad range of contaminants in soil have been established by the CTDEEP, based on certain exposure assumptions. The DEC apply to accessible soil to a depth of 15 feet. The DEC for substances other than PCBs do not apply to inaccessible soil at a release area, if such inaccessible soil is less than 15 feet below the ground surface, an environmental land-use restriction (ELUR) is in effect with respect to the subject release area. For PCBs, a maximum concentration of 10

milligrams per kilogram (mg/Kg) can remain in soils considered inaccessible. Inaccessible soil generally means polluted soil, which is the following:

- More than 4 feet below the ground surface
- More than 2 feet below a paved surface comprised of a minimum of three inches of bituminous pavement or concrete
- Beneath an existing building
- Beneath another permanent structure(s) approved by the CTDEEP Commissioner. Buildings can be constructed and/or clean fill can be placed over contaminated soils rendering them inaccessible.

The CTDEEP has established two sets of DEC using exposure assumptions appropriate for residential land use (Res DEC) or for industrial and certain commercial land use (I/C DEC). In general, all sites are required to be remediated to the residential criteria. If the I/C land use criteria are applicable and used, an ELUR notification is required in accordance with the RSRs.

Pollutant Mobility Criteria

The PMC that apply to remediation of a site depends on the groundwater classification of the site. The purpose of these criteria is to prevent contamination to groundwater in "GA" classified areas, and to prevent unacceptable further degradation to groundwater in "GB" classified areas.

The applicable PMC for the Site is the PMC for a "GB" classified area. The PMC generally applies to all soil within the unsaturated zone, which represents the soil located from the ground surface to the seasonal high-water table in "GB" classified areas. The criteria do not apply to environmentally isolated soils that are polluted with substances other than VOCs provided an ELUR is recorded for the release area which ensures that such soils will not be exposed (unless approved in writing by the CTDEEP Commissioner). Environmentally isolated soils are defined as certain contaminated soils, which are above the seasonal high-water table, beneath an existing building and not a source of on-going contamination. An ELUR must be recorded for the site, which ensures that such soils will not be exposed by building demolition or other activities. Buildings can be constructed over contaminated soils rendering them environmentally isolated.

Remediation based upon the listed PMC requires that a substance, other than an inorganic substance or PCB, in soil be remediated to at least that concentration at which the results of a mass analysis of soil for such substances does not exceed the PMC applicable to the groundwater classification (i.e., GB) of the area in which the soil is located (default PMC). An inorganic substance (metals) or PCBs in soil must be remediated to at least that concentration at which the analytical results of leachate produced from either the Toxicity Characteristic Leaching Procedure (TCLP) or the Synthetic Precipitation Leaching Procedure (SPLP) does not exceed the PMC applicable to the groundwater classification of the area in which the soil is located.

In addition, the RSRs provide an alternate method for compliance with the PMC. For polluted soils within a GB Groundwater area, a SPLP or TCLP concentration of a substance in soil may be remediated to ten-times the groundwater protection criteria provided that non-aqueous phase liquid (NAPL) is present in soils as defined in the calculation provided in the RSRs.

1.2.2 Groundwater Criteria

Groundwater remediation requirements are dependent upon the groundwater classification of the site. The objectives of these standards are the following:

- Protect and preserve groundwater in “GA” areas as a natural resource
- Protect existing use of groundwater regardless of the area’s groundwater classification
- Prevent further degradation of groundwater quality
- Prevent degradation of surface water from discharges of impacted groundwater
- Protect human health and the environment.

Portions of the RSRs governing groundwater regulate remediation of groundwater based on each substance present within the plume and by each distinct plume of impact. Several factors influence the remediation goal at a given site, including: background water quality, the groundwater classification, the proximity of nearby surface water, existing groundwater uses, and the presence of buildings and their usage. When assessing general groundwater remediation requirements, these factors must be considered.

Since the site is situated within a “GB” classified area, the following criteria apply to the site:

- Surface Water Protection Criteria (SWPC)
- Groundwater Volatilization Criteria (VC)

Surface Water Protection Criteria

The SWPC apply to all groundwater that discharges to a surface water; and therefore, applies to the site. The SWPC ensures that groundwater contamination resulting from on-site sources, which exceed background concentrations, is remediated to levels that adequately protect surface water quality. In general, compliance with the SWPC is achieved when the compound in groundwater directly upgradient from the discharge point emanating from a site is equal to or less than the SWPC established by the CTDEEP. Compliance with the SWPC can also be achieved when the 95% Upper Confidence Limit of the arithmetic mean of all sample results from a groundwater plume are equal or less than the established SWPC. Additionally, site-specific alternative SWPC can be established in accordance with the RSRs.

Groundwater Volatilization Criteria

The VC apply to all VOC-impacted groundwater within 15 feet of the ground surface or the lowest floor of an overlying building. According to the regulations, the VOC of concern will be remediated to a concentration that is equal to or less than the applicable Residential Volatilization Criteria (Res VC) for groundwater. It is noted that if VOC-impacted groundwater is located beneath a building that solely used for industrial or commercial purposes; then the groundwater may be remediated such that the concentrations are equal to or less than the applicable Industrial/Commercial Volatilization Criteria (I/C VC) in lieu of the RES VC. This is provided, however, that an ELUR be in effect at the site or the portion of the site covered by the building. The ELUR must also ensure that the parcel (or portion thereof beneath the building) will not be used for any residential purpose in the future and that future use is limited to industrial or commercial activity.

1.3 Phase I ESA

Tighe & Bond issued the Phase I ESA for the Rockville Former MGP site in March 2017. The Phase I ESA was completed to identify areas of environmental concern (AOCs) at the site in accordance with the CTDEEP's Site Characterization Site Guidance Document (SCGD). The following on-site and off-site AOCs were identified during the Phase I ESA. Figure 3 provides a summary of the on-site and off-site AOC locations.

On-site AOCs:

- **AOC-1**: Former Retorts/Generating Room
- **AOC-2**: Former Purifying House
- **AOC-3**: Former Gas Holder #1 [Gasometer-22,000 ft^3 Capacity]
- **AOC-4**: Former Gas Holder #2 [Gasometer-22,000 ft^3 Capacity]
- **AOC-5**: Former Gas Holder #3 [Gasometer-110,000 ft^3 Capacity]
- **AOC-6**: Former Coal Shed
- **AOC-7**: Former Transformer House
- **AOC-8**: Current Substation
- **AOC-9**: Historic Site Fill
- **AOC-10**: Hockanum River Sediment
- **AOC-11**: Coal Tar impacts and Fill Observed at TB-33 (Southwestern portion of site)
- **AOC-12**: Creosote/Coal Tar impacts and Fill Observed (Southeastern portion of site)
- **AOC-13**: Possible Historic Fill to the south of the Hockanum River
- **AOC-14**: Creosote impacts and Fill Observed (Northern portion of Site)
- **AOC-15**: Site-Wide Groundwater Impacts

Off-Site AOCs:

- **AOC-16**: Off-Site Creosote Impacts St. Joseph's School/Church Parking Lot
- **AOC-17**: Off-site Creosote Impacts Maple Street ROW
- **AOC-18**: Off-site Petroleum Impacts #8 and #12 Maple Street
- **AOC-19**: Suspected Fill #12 and #14 Maple Street (not related to site)
- **AOC-20**: Off-site Creosote Impacts #14 Maple Street
- **AOC-21**: Off-site Surface Soils Maple Street School (not related to site)
- **AOC-22**: Off-site Surface Soils 175 Union Street (not related to site)
- **AOC-23**: Off-site Groundwater Impacts

Tighe & Bond concluded that based upon available information the site does not qualify as an "Establishment" as defined by Section 22a-134 (the CT Transfer Act) of the Connecticut General Statutes (CGS).

Tighe & Bond proposed that a Phase III ESA be completed to assess the nature and extent of coal tar/creosote impacts and to assess if releases occurred at other identified

AOCs at the site. In addition, we proposed the collection of additional water service records for properties within 500-feet of the site as part of an updated Water Well Receptor Survey.

Section 2
Phase III ESA Summary

Tighe & Bond developed a Phase III ESA investigation program to assess the nature and extent of on-site and off-site impacts associated with the Rockville former MGP and site-related AOCs. The Phase III ESA built upon previous investigations completed by Northeast Utilities Service Company Environmental Service Department between 1990 and 1995. The Phase III ESA was completed between August and November 2017.

The Phase III ESA included the collection of surface soils, advancement subsurface soil borings, excavation of test pits, and installation of monitoring wells to characterize soils and groundwater conditions at the site. Sediments and surface waters within the Hockanum River were collected to assess historic concentrations identified during previous site investigations. Figure 4 depicts the on-site and off-site investigation areas, previous investigation areas, and Phase III ESA sample locations.

2.1 Methods

As part of the Phase III ESA, Eversource conducted outreach to secure property access agreements for abutting properties at 17 Maple Street and St. Joseph Church property. Access to 14 Maple Street was not provided by the property owner. Consequently, access to the United States Postal Service (USPS) access road was obtained to assess off-site groundwater impacts to the east of the site. Access to off-site properties was secured in mid-August 2017. Tighe & Bond and the environmental drilling subcontractor, Cisco Geotechnical, LLC (CISCO), marked out investigation locations and notified Call-Before-You-Dig (CBYD)/811 to identify publicly-owned utilities for the on-site and off-site Phase III ESA locations prior to the commencing intrusive work. In addition, private subsurface utility mark-out contractor, Underground Survey, LLC, was retained to identify subsurface utilities or obstructions at Phase III ESA locations. As a precaution, soils borings and/or monitoring wells within the Maple Street right-of-way (ROW) and within the Inner Substation Area were vacuum cleared to 5-feet below grade to avoid potentially damaging buried subsurface utilities or substation infrastructure.

Environmental drilling was completed using primarily a Geoprobe® 3230 drill rig. A Geoprobe® 7822 drill rig was utilized for drilling within and adjacent to the Rockville 14W Inner Substation where a smaller drilling footprint was required. Drilling was completed using direct-push drilling using Geoprobe®'s dual tube DT35 sampling system which cased-off the borehole during the advancement of the deep soil borings. Samples were primarily collected using a 3.25-inch sampler which used dedicated acetate liners. Shallow samples within the top 5-feet were collected with a standard Marco-Core and dedicated acetate liner. Each boring was drilled continuously to the target completion depth of the soil boring or rig refusal. Soil borings were advanced from 5 feet to 82 feet below grade. Soils were logged for lithology and evidence of visual and/or olfactory impacts. Soils were screened within a photo-ionization detector (PID) and up to two headspace screening samples were collected from soil sample interval. Analytical soil samples were collected from coal tar/creosote-impacted intervals or just above the seasonal high groundwater table to assess compliance with the GB PMC. Following completion, deep soil borings advanced below the water table were abandoned via grouting. Shallow soil borings above the water table abandoned with a combination bentonite chips and/or clean sand.

Following the collection of samples, soil boring sampling equipment and the bucket of the excavator was decontaminated by steam cleaning over a decontamination pad located within the Outer Substation Area of the site prior to commencing sampling at the next Phase III ESA sample location.

Bedrock was cored at three locations on-site at MW-3BR, MW-2BR and MW-10BR to install bedrock monitoring wells. Prior to coring, bedrock was drilled using a roller bit and permanent steel casing was advanced into the top of the bedrock and grouted in-place using the Geoprobe® 3230.

Groundwater monitoring wells were installed using 4 ¼" hollow-stem augers using the Geoprobe® 3230. Each overburden monitoring well consisted of a 0.010"-slotted poly-vinyl chloride (PVC) screen that were 10-feet in length affixed to a PVC riser that extended to the ground surface using standard well construction methods which included a sand filter pack constructed 2 feet above the top of the screen and a bentonite seal. Deep overburden and bedrock monitoring wells were grouted with a bentonite-grout slurry to seal the borehole annulus below the water table. For water table monitoring wells, the boring annulus above the water table was backfilled with clean sand or native soil cuttings above the bentonite seal.

Water table groundwater monitoring wells, designated with "S", were installed to straddle the groundwater table which ranged between approximately 7.5 feet below grade within the Rockville 14W Inner Substation Area to 34 feet below grade in MW-23S within the USPS Access Road off-site to the east. The difference in elevation is attributable in part to a significant increase in elevation, approximately 22 feet, to the north across the site and off-site in the area MW-23S. Deep monitoring wells, designated "D" were screened in glacial materials between 72 to 83 feet below grade at or near the bedrock interface. Newly installed monitoring wells were surveyed by Kratzert, Jones and Associates, Inc. a Connecticut-licensed surveyor.

Groundwater monitoring wells were developed with a Waterra Hydro lift pump or whale submersible pump and surged with a surge block and check value to remove silt. Groundwater wells were gauged and sampled one week following development. Groundwater monitoring wells were sampled using *EPA Region 1 Low Stress (low flow) Purging and Sampling of Groundwater Samples from Monitoring Wells, dated July 30, 1996, Revised September 19, 2017.* Groundwater samples were collected with a peristaltic pump or a bladder pump for wells where depth to groundwater was below 25 feet below grade. Groundwater was pumped through dedicated tubing through a flow through cell that was monitored with a multi-parameter YSI meter that measured groundwater parameters including pH, conductivity, oxygen reduction potential (ORP), dissolved oxygen and temperature. Turbidity was monitored with a separate turbidimeter during groundwater purging.

Monitoring well screen interval information, depth to groundwater and groundwater elevation is provided on Table 1 (Appendix B). Low-flow groundwater monitoring sheets are provided in Appendix C.

All field work was completed under a site-specific health and safety plan. Work activities completed within the active Inner Substation Area of the Rockville Substation 14W required completion of Eversource Substation Awareness Training and oversight by a Eversource Qualified Escort during work within the Inner Substation Area.

Phase III ESA analytical samples were collected into laboratory provided and preserved sample containers, chilled on ice and maintained under chain-of-custody prior to delivery to the analytical testing laboratory, Phoenix Environmental Laboratories, Inc. (Phoenix) in Manchester, CT. Phoenix is a Connecticut Department of Health (CTDPH)-approved commercial environmental laboratory (PH-0618). Analytical samples were analyzed by reasonable confidence protocol (RCP) analytical methods. Samples were analyzed for site constituent of concern (COCs) by the following methods: volatile organic compounds (VOCs) via EPA Method 8260, SVOCs via EPA Method 8270, total CTDEEP RSR metals, leachable CTDEEP RSR metals and cyanide via synthetic precipitation leaching procedure (SPLP), extractable total petroleum hydrocarbons (ETPH) via CTDEEP ETPH Method and total cyanide via EPA 9012. Select soil samples were analyzed for leachable VOCs, ETPH and polycyclic aromatic hydrocarbons (PAHs) via EPA Method 1312. Surficial soil samples were also analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082 within and adjacent to Inner Substation. In addition, sediment samples were analyzed for total organic carbon. A sediment grain size sample was collected to assess grain size distribution at a representative sample location.

A summary of detected analytical results are provided by media, soils, groundwater, sediment and surface water on Table 2 through Table 5 in Appendix B. Analytical laboratory data reports are provided in Appendix D.

A summary of Phase III ESA work completed on-site at 13 Maple Street and at off-site areas of investigation are discussed below.

2.2 On-Site Investigations and Findings

On-site investigations were completed between mid-August and November 2017. Phase III ESA investigation included:

- Advancement of 26 soil borings
    - Thirteen soil borings (SB-01 through SB-13)
    - Six soil borings for monitoring well installations (MW-2BR, MW-7D, MW-8SR, MW-16S, MW-17S and MW-18D)
    - Seven shallow soil borings (SB-20 through SB-24 and SB-26 and SB-27)
- Excavation of seven test pits: TP-01 through TP-07
- Installation of ten monitoring wells
    - Five water table monitoring wells (including three replacement wells designated “R”): MW-16S, MW-17S, MW-2SR, MW-8SR, and MW-10SR
    - Two deep overburden wells: MW-7D and MW-18D
    - Three bedrock wells (MW-2BR, MW-3BR, and MW-10BR)
- Excavation of seven test pits (TP-01 through TP-07)

Phase III ESA analytical samples collected on-site included:

- Thirty-six soil samples, including two blind duplicate samples
- Eleven surficial soil samples (SS-100 through SS-108 and SB-25), including one blind duplicate within the top six inches of soil

- Eight groundwater samples were collected from newly installed monitoring wells. Groundwater samples were not collected from MW-2SR and MW-10SR because coal tar blebs, staining and/or sheens were observed during the development of the wells.
- Seven sediment samples (SED-01 through SED-06) including one blind duplicate sample within the Hockanum River
- Five surface water samples (SW-1 through SW-4) including one blind duplicate from the Hockanum River

A summary of On-site Phase III ESA findings are provided below. A preliminary site conceptual model table is provided as Table 6.

2.2.1 Subsurface Soils

- Test pit excavations (TP-01 through TP-07) encountered the foundations of the former MGP. The foundations for the former Generator House (AOC-1), former Purifier House (AOC-2]), former Gas Holders #1, #2, and #3 (AOC-3, AOC-4 and AOC-5). Fill materials (bricks, roof tiles) were observed within soils within the former Purifier House foundation. Concentrations of ETPH and PAHs exceeded the Res DEC and/or the GB PMC. Tar-impacted soils were encountered within the bottom of the Gas Holder #1 and Gas Holder #2 foundations from approximately 5.75 to 15 feet below grade. Drill refusal occurred at 15 feet and brick was recovered in the tip which suggests the bottom of the holder foundation is present. Concentrations of ETPH, VOCs, and PAHs exceeded the Res DEC and/or GB PMC.

  Visually clean fill was encountered at TP-07 within Gas Holder #3. The concrete foundation was encountered at approximately 8 feet below grade. Based upon shallow subgrade holder foundation, it is likely that Gas Holder #3 was a distribution holder. ETPH and VOCs were not detected. PAHs, cyanide and metals were detected below RSR criteria.
- Surface soil samples (SS-100 through SS-106) and soil borings encountered shallow fill, including coal, ash, slag, brick, and/or glass, near the southeast corner of the Inner Substation (AOC-9) and the outer substation (AOC 12) and on the overgrown portion of the site to the south of the Hockanum River (AOC-13). Concentrations of ETPH and PAHs in the shallow fill exceeded the Res DEC and GB PMC.
- Surface soils within the Inner Substation at the former Coal House (AOC-6), former Transformer House (AOC-7) and Current Substation (AOC-8). Fill material (large pieces of coal) were observed in surficial soil SS-102 within the footprint of the former Coal Shed. Fill materials were observed within the top 5 feet of the ground surface in soil borings SB-10, SB-11 and MW-2BR (soil boring) on the southern portion of the Inner Substation near the existing brick 26-inch sanitary sewer line. Concentrations of ETPH, PAHs, metals (arsenic and lead) exceeded the Res DEC and/ or the GB PMC.
- Shallow subsurface soils within SB-21 within the northern portion of the site (AOC-9) contained detections of PAHs that exceeded the Res DEC and/or GB PMC. SPLP PAH analysis did not detect PAHs which indicates that PAHs are not leachable.

- Subsurface soil impacts (sheens with petroleum and/or coal tar-like odor) were observed in soils borings (MW-2BR, SB-10, and SB-11) and previous site investigation TB-33 [AOC-11] from approximately 5 feet to 21 feet below grade on the southern portion of the Inner Substation near the sewer main. Concentrations of ETPH, PAHs and/or metals (arsenic and lead) exceeded the Res DEC and/or GB PMC in SB-11 and MW-2BR.
- Deep subsurface Phase III ESA and previous site investigation soil borings encountered coal tar/creosote-related impacts below 17 feet below grade outside Gas Holders (AOC-3 and AOC-4). The heaviest coal tar impacted soils were observed in soil borings SB-04 and SB-05 next to Gas Holders #1 and Gas Holder #2 (AOC-3 and AOC-4) where impacts were observed from approximately 19.5 to 39 feet below grade. Isolated deeper intervals of coal tar-impacted soil were encountered from approximately 44.5 feet to 50 feet below grade in SB-04 and at 71 to 74 feet below grade at SB-05. Coal tar-impacted soils were primarily observed in soils located near or below the apparent water table. Concentrations of ETPH, VOCs and PAHs were detected at concentrations exceeding the GB PMC in a sample collected from 20 to 21 feet below grade in SB-05. Coal tar impacts extended from the former Gas Holders #1 and #2 (AOC-3 and AOC-4) to the northwest corner of the site (AOC-14). Coal tar impacts were observed in soils located approximately 25 feet to 39 feet below grade SB-12 and SB-13 at depths below the apparent water table.

2.2.2 Bedrock

Bedrock, Portland Arkose, was encountered during the drilling soil boring (SB-09A, MW-07D, MW-02BR, MW-03BR, MW-10BR) during the Phase III ESA and in MW-6D, MW-11D, and MW-12D during previous site investigations. Bedrock was encountered at 34 feet below grade in MW-2BR within the Inner Substation adjacent to the Hockanum River to 87.5 feet below grade in MW-3BR at the northwest corner of the site. The bedrock surface is sloped to the north as shown in Figure 5.

No evidence of visual impacts, elevated PID readings or apparent odors were observed in cored bedrock.

2.2.3 Groundwater

On-site groundwater impacts were assessed under AOC-15. A summary of RSR exceedances in groundwater are summarized by shallow (water table) and deep monitoring wells that are screened within the overburden aquifer and bedrock wells for the Phase III ESA sampling completed during 2017. Figures 6, 7, and 8 provide a groundwater contour maps and inferred flow direction for the shallow (water table), deep overburden aquifer and bedrock aquifer beneath the site based upon 2017 gauging data. Groundwater flow is northward in the shallow (water table) and deep overburden aquifer. Groundwater flow in the bedrock aquifer is to the north/northeast.

Shallow (Water table) Monitoring Wells

ETPH and total cyanide were not detected in MW-8SR, MW-16S and MW-17S within and adjacent to the Inner Substation at the western site boundary. VOCs were not detected in groundwater at MW-8SR and MW-16S. Tetrachloroethene, a chlorinated VOC, was detected in MW-17S at a concentration below RSR criteria.

PAHs were not detected in MW-16S and MW-17S at the western site boundary and Inner Substation area. PAHs were detected in MW-8SR at concentrations above the SWPC adjacent to the sewer line within the Inner Substation area. Concentrations of metals were detected in each of the water table monitoring wells with the highest concentrations detected within MW-8SR. It is likely that the elevated detections of PAHs and metals in MW-8SR are attributable to high turbidity measured during the collection of the groundwater sample at MW-8SR.

Deep Monitoring Wells

VOCs were detected at levels below the SWPC. Concentrations of PAHs were detected in MW-7D and MW-18D. Acenaphthylene was detected above the SWPC in MW-18D at the northwest corner of the site. Concentrations of phenanthrene in MW-7D and MW-18D were detected below the SWPC criteria of 14 microgram/ Liter (ug/L). ETPH was detected in MW-18D above the SWPC at the northwest corner of the site. Metals were detected at concentrations below the SWPC in MW-7D and MW-14D.

Bedrock Monitoring Wells

VOCs were either not detected or were detected at levels below the SWPC. Concentrations of PAHs were detected in each bedrock monitoring well. Acenaphthylene was detected at 1.6 ug/L in MW-3BR which exceeded the SWPC. Concentrations of phenanthrene in MW-3BR and MW-10BR were detected below the SWPC criteria of 14 ug/L. ETPH was not detected in MW-2BR and was detected below SWPC in MW-3BR and MW-10BR. Metals were detected at concentrations below the SWPC.

Hockanum River Sediments

VOCs, cyanide, and PCBs were not detected in Hockanum River sediment samples. PAHs were detected in each sediment sample. The highest PAH concentrations were detected in SED-01 located at the upstream site boundary and directly below the West Main Street Bridge, which suggests an upstream source or impacts from roadway run-off. ETPH concentrations ranged from non-detected to 1,100 milligram/Kilogram (mg/kg) at the SED-06 location. Metals were detected in each sediment sample with the highest concentrations were detected at SED-06. Total organic ranged from 5,100 mg/Kg to 24,000 mg/Kg. SED-06 is located adjacent to a former cast iron pipe but is also downstream from the two outfalls beneath the Maple Street that discharge to a tributary to the Hockanum River. A plastic outfall pipe conveys drainage from upgradient properties; the extent of which is unknown. The second is a square stone and masonry outfall from the former Hockanum Mill that reportedly discharged to the Hockanum River during the operation of the mill.

Hockanum River Surface Water

VOCs, SVOCs, ETPH, and total cyanide were not detected in the Hockanum River surface waters. Dissolved metals (barium, chromium and zinc) were detected. Concentrations of these compounds were detected upstream at the site boundary which suggests concentrations of these compounds are present as part of natural stream water conditions or are attributable to upstream sources.

2.3 Off-Site Investigation and Findings

Off-site Phase III ESA investigations were completed within the Maple Street ROW and three privately-owned properties to the north/northwest of the site. Eversource conducted outreach with off-site private property owners to secure access during the 2nd

through 3rd quarter 2017. Once access was secured, each location was marked out for public utilities by CBYD prior to commencing drilling activities.

Off-site Phase III ESA activities included the advancement of ten soil borings and four monitoring wells to assess off-site impacts to the north and east of the site. A summary of off-site investigations is provided on the table below.

Location	Soil Borings	Monitoring Wells
St. Joseph's Church [Parking Lot]	SB-14, SB-15, SB-16 MW-19S, MW-20S and MW-23S (soil borings)	MW-19S, MW-20S and MW-21S
17 Maple Street [Residence]	SB-17	Monitoring Well Not Installed
Maple Street ROW	SB-18 and SB-19	Monitoring Well Not Installed
USPS Access Road	MW-23 (soil boring)	MW-23

Phase III ESA analytical samples collected off-site included eleven soil samples and six groundwater samples from newly installed monitoring wells and existing monitoring wells (MW-14S, MW-14D). MW-21S was not sampled due to the presence of coal tar blebs and staining during development.

Off-site soil impacts to the north of the site beneath the St. Joseph School parking lot were addressed under AOC-16 and impacts within the Maple Avenue ROW are addressed under AOC-17. Off-site groundwater impacts for St. Joseph Church and Maple Street ROW are addressed under AOC-23.

2.3.1 Subsurface Soils

St. Joseph Church Parking lot

Soils with visual coal tar impacts were observed in SB-14 from 20.5 to 23 feet below grade, in SB-15 from 31.5 to 34 feet below grade and 35 to 38 feet below grade within the St. Joseph Church Parking lot. The vertical and horizontal extent of impacts are generally consistent with the previous site investigations completed by Northeast Utilities Service Co. Visual evidence of coal tar impacts were not observed in the soil borings for MW-19S and MW-21S, and SB-16 which define the extent of impacts within the St. Joseph Church Parking Lot.

VOCs, ETPH, PAHs, and total cyanide were not detected in soils above the water table in samples collected within the St. Joseph Church parking lot. Metals were detected in each soil sample. Concentrations of metals were detected below the applicable RSR criteria. Two soil samples collected from SB-14 and MW-20S below the apparent water table and within coal tar-impacted zones contained concentrations of VOCs, PAHs, and EPTH; however, because of the deep nature of the impacts below the water table the RSR criteria does not apply. Concentrations at SB-14 were at lower levels than soils at similar depths completed in on-site borings.

17 Maple Street

No evidence of coal tar impacts was observed in SB-17 completed in the backyard of 17 Maple Street. VOCs, PAHs, ETPH and cyanide were not detected. Concentrations of

metals were detected but at similar concentrations as other off-site soil samples indicating that concentrations are likely attributable to natural concentrations in soils.

Maple Street ROW Area

Two soil borings (SB-17 and SB-18) were completed in the Maple Street ROW and one soil boring for MW-23S that was completed in the USPS Access Road (AOC-17). A combination of apparent petroleum and coal tar impacts were noted within SB-18 and SB-19 within the Maple Street ROW.

Staining with strong petroleum odors were in SB-19 from 11 to 19 feet and within SB-18 from 19 to 23 feet below grade. Fuel oil impacts were previously encountered from 15 to 27 feet below grade on 8 Maple and 12 Maple Street properties during a previous site investigation by Northeast Utilities Service Co. During the Phase I ESA, a 1,000-gallon leaking underground storage tank (LUST) used for heating oil storage at the former 8 Maple Street Residence was identified in CTDEEP Spill report (Case No. 2003-06991) during the Phase I ESA. A fuel distribution company, Gottier Fuel is located upgradient of the site at 221 West Main Street.

Staining with coal tar odors were observed in SB-18 from 21 to 23 feet and 26.5 to 29 feet below grade and in SB-19 from 19 to 26.5 feet below grade. No visual impacts were observed below 29 feet to the termination of the soil borings. The coal tar impacts appear to below the apparent water table based upon visual observations during drilling. No observation of visual impacts, odors or elevated PID readings were observed in the soil boring for MW-23S within the USPS ROW to the east of Maple Street.

Samples collected within petroleum-impacted soils contained concentrations of VOCs, PAHs, and ETPH exceeded applicable RSR criteria. Metals were detected below RSR criteria.

2.3.2 Off-site Groundwater Impacts

Off-site groundwater impacts (AOC-23) are summarized below by St. Joseph Church property and the USPS Access Road.

St. Joseph Church Property

VOCs, PAHs, ETPH and cyanide were not detected in shallow water table monitoring wells (MW-14S, 19S, MW-21S) downgradient of the site. Metal concentrations were detected but at concentrations below the SWPC. Elevated metal concentrations were detected in MW-14S are likely attributable to slightly elevated turbidity in the sample. MW-20S within the driveway to the church parking lot was not sampled because coal tar staining and sheens were encounter during the development of the well. MW-13S was dry at the time of sampling during the Phase III ESA.

In the deep overburden monitoring well (MW-14D), concentrations of VOCs, were detected below the SWPC. Methyl-tert-butyl-ether (VOC), a historic gasoline additive, was detected in MW-14D which suggests impacts could be partially attributable to a release of petroleum near the well. PAHs were also detected in MW-14D at concentrations below the SWPC criteria. Metals were detected in MW-14D at concentrations below RSR criteria. MW-13D was unable to be located within the church parking lot and was likely paved over.

USPS

VOCs, PAHs, ETPH and cyanide were not detected in MW-23S located in the USPS Access Road. Metals were detected at levels below the SWPC.

Section 3
Quality Assurance / Quality Control

Quality assurance/quality control measures were implemented as part of the Phase III ESA including the collection of field QA/QC samples and laboratory sample analysis via RCP analytical methods. A summary of the Phase III ESA QA/QC measures are provided below. A full data quality assessment/ data usability evaluation will be completed as part of the Final Phase III ESA report.

Field QA/QC samples included the collection of blind duplicate samples for each sample media (soil, groundwater, sediment and surface water) and the collection/submittal of blank samples (equipment blank and trip blank samples. Duplicate sample results are provided next to the primary sample on Table 2 through Table 5, respectively. The equipment blank sample did not contain site-related COCs. Methylene chloride, a common laboratory cleaning solvent, was detected in the equipment blank but not the corresponding groundwater samples or sediment samples. The methylene chloride detections are flagged as possible laboratory contamination. VOCs were not detected in trip blanks.

Phase III ESA samples were analyzed by Phoenix in accordance with CTDEEP's RCPs. Each laboratory analytical data package contains a Laboratory Analysis Quality Assurance/ Quality Control Certification Form which indicates that laboratory followed the specified QA/QC performance criteria. Phase III ESA analytical samples were submitted within laboratory-provided and preserved sample jars and were analyzed within analytical method within holding times.

The RCP analytical data packages provide a summary of QA/QC non-conformances are in Laboratory Analysis Quality Assurance/ Quality Control Certification Form and also are described in the QA/QC information within the back of each data analytical data package. Several non-conformances were identified for non-target compounds that are not COCs at the site. In instances where non-conformances were identified for site-related COCs (i.e., metals and SVOCs), slight variability and biases were identified.

During our review, one instance of an elevated sample temperature of 6.2° C with cooling initiated for a sample delivery of four samples to the laboratory which is just above the required 6.0° C temperature. It is possible for a low bias for VOCs in one soil sample [SB-05 (20-21)]. This sample contained VOC detections well above the GB PMC, as such is not adversely impacted.

Based on the review of the non-conformances and the laboratory certification documentation, each lab report meets CTDEEP RCP. The non-conformances identified do not adversely affect the usability of the laboratory data. In those areas where COCs were involved, the data quality is only slightly affected by these non-conformances and is sufficient to satisfy the data quality objectives (DQOs) for the project.

Section 4
Conceptual Site Model

A CSM is a representation of an environmental system at a site that is used as a tool to identify releases, migration pathways, potential receptors, and ultimately risk. The CSM is used to develop work plans and provide a framework to address issues that arise during the investigation of a site. The CSM is refined throughout the site characterization process as new data are acquired. The final CSM will fully define the environmental system at the site and validate the hypotheses regarding the environmental fate of released contaminants.

A final, validated CSM includes the following components:

- Description of the site and environmental setting
- Identification of AOCs and associated COCs
- Potential release mechanisms for COCs at each AOC
- Evaluation of migration pathways and locations at which environmental media are most likely to have been impacted by a release
- Identification of AOCs at which releases have occurred as well as AOCs at which no releases have occurred
- Evaluation of the nature and three-dimensional extent of contaminants
- Data and rationale to support conclusion

Table 6 provides a preliminary CSM summary that was developed for the Rockville MGP site and has been updated based upon the findings of the 2017 Phase III ESA activities. A full CSM will be provided as part of the Phase III ESA Report. Based upon the CSM, additional investigations are needed to assess the nature and extent of impacts at the site and off-site AOCs as discussed below in Phase III ESA data gaps.

The following off-site AOCs related to surface soil impacts were not assessed during the Phase III ESA: AOC-19 Suspected Fill #12 and #14 Maple Street, AOC-21 Off-site Surface Soils Maple Street School and AOC-22 Off-site Surface Soils 175 Union Street. Historic PAH impacts in surface soils were determined to attributable to off-site source (airborne deposition) based upon information encountered during the preparation of the Phase I ESA for the site.

Off-site Petroleum Impacts #8 and #12 Maple Street (AOC-18) was not assessed during the Phase III ESA because a record of LUST record for a 1,000-gallon heating oil UST at #8 Maple Property was encountered during the Phase I ESA

Section 5
Well Receptor Survey

Tighe & Bond completed a Water Supply Well Receptor Survey during November 2017 in general accordance with CTDEEP's *Water Supply Well Receptor Survey Guidance Document* dated September 2009 (revised January 2015).

For this report, a receptor is defined as a residential or commercial potable well that is in use. The receptor survey is intended to determine the extent of public water service at a minimum of within 500-feet of the site and identify those properties where potable groundwater supply wells may still be in-use.

The site is located within a mixed residential and commercial area of Rockville. Residential properties are located to the east, west and north of the site. Commercial (liquor store and office), vacant (former machine shop), and high-voltage power line ROW are located to the south. A commercial heating oil company (Gottier Fuel Company) is located to the southeast across West Main Street and the Saxony Mill Park is located to the southwest across West Street.

As indicated above, the site is located within a GB groundwater classification area. The area to the west of West Street is classified as GA which indicates that it is area of existing private water supply wells or an area with the potential to provide water to public or private water supply wells and is at a minimum, suitable for drinking or other domestic uses without treatment.

5.1 Water Supply Well Survey Methods

The following methods were used by Tighe & Bond to assess the presence of water supply wells in the vicinity of the site. Tighe & Bond initially used a 500-foot search radius to assess the presence for the use of private wells. However, based upon the Phase III ESA Conceptual Site Model and CTDEEP input the radius was increased to a more conservative 1,000-foot radius.

A geographic information system (GIS) was created to establish a 500-foot and 1,000-foot buffer zones surrounding the site (Figure 9). Sixty-two (62) properties were identified within a 500-foot radius of the site and two hundred and two (202) properties were identified within a 1,000-foot radius search area. The street address and parcel ID information for the parcels within the radius search area were obtained from the Town of Vernon and Town of Ellington tax assessor information. The list of properties was submitted to the Connecticut Water Company on November 2, 2017 to request information regarding water service connection information. In addition, a visual "windshield survey" was conducted by Tighe & Bond from the sidewalks within the public street ROWs on November 13 and 21, 2017 within the 1,000-foot buffer area to identify potential residential well-heads, if present, and public water source indicators, e.g. water lines, and fire hydrants.

We reviewed the following information sources to assess for potential water supply wells in the vicinity of the site:

- Water Quality Classification Maps of Connecticut provided on CT ECO website.
- *Public Water Supply Map* published by the Connecticut Department of Health (http://www.ct.gov/dph/cwp/view.asp?a=3139&q=513480)

- *Public Water System Lists* published by the Connecticut Department of Health (http://www.ct.gov/dph/cwp/view.asp?a=3139&q=387346)
- CTDEEP's Atlas of the Public Water Supply Sources & Drainage Basin of Connecticut, June 1982
- Aquifer Protection Areas (APAs) Vernon, CT prepared by CT DEEP dated February 14, 2017. (APA Map for Ellington was not provided on the CT DEEP website) http://www.ct.gov/deep/cwp/view.asp?a=2685&q=322248&deepNav_GID=1654
- Water Well Completion Reports for the Town of Vernon from 1977 through 2016 available from Department of Consumer Protection (DCP), 365 Capital Avenue, Hartford, CT.
- List of Significant Environmental Hazards Reported to DEEP (Period covering 10/01/1998 through 10/31/2017) (http://www.ct.gov/deep/lib/deep/site_clean_up/hazard_notification/hazardnotificationsummary.pdf)
- Final Preliminary Assessment, Northeast Utilities-West Main and Maple Street, CTDEEP, July 7, 1989.
- Manufactured Gas Plant Site Investigation: Rockville, Environmental Services Department, Northeast Utilities Service Company March 1992.
- North Central District Health Department Property Records for select properties.

5.2 Well Receptor Survey Results

Tighe & Bond did not encounter any active public water supply wells within a 1,000-foot radius of the site based upon the information sources listed above.

No water supply wells were depicted on CTDEEP's Water Classification Map for Vernon or on CTDEEP's Atlas of Public Supply sources. The site is not located within or near an APA or public supply well field. The closest public supply wells are located approximately 1.5 miles from the site based upon EPA and Northeast Utility Service Company documents:

- Hillside Industrial Park Wells and High Manor Trailer Park Well located 1.4 miles to the southeast (Vernon)
- Town of Vernon Water Department Wells located 1.6 miles to the southwest (Vernon)
- Piney Brook Apartments well located 1.5 miles to the north (Ellington)

No significant environmental hazard listings were identified near the site that identified potable well reporting hazards nor was an existing potable well survey record indicated near the site.

Town of Vernon (Rockville) and Ellington is supplied with potable water by the Connecticut Water Company according to CTDPH website. The site and the 1,000-foot buffer are located within the Connecticut Water Company service area. The Connecticut Water Company reviewed service records for 202 properties within a 1,000-foot radius of the site. Water service records indicate that each property within the well radius is serviced by Connecticut Water except for the following properties:

<u>Rockville/Vernon</u>:

- 8 Charter Road Residence
- 15 Nye Street John F. Ashe Fire Station

- 8 Morrison Street (House Demolished/ Empty Lot)
- West Main Street Parking lot for Hockanum Mill
- 33 River Street (Vacant Lot)
- 66 West Street (Vacant Former Machine Shop Foundation)
- 67 West Street Saxony Mill Park
- Union Street Park

Ellington:

- 7 Ertel Drive Residence
- 2 Charter Road Residence
- 4 Charter Road Residence

Public water supply features including water shut-off boxes and fire hydrants were observed by Tighe & Bond within the street ROWs during the windshield survey.

Tighe & Bond observed one wellhead during the windshield survey within 500 feet of the site. A wellhead was observed in Saxony Mill Park, approximately 350 feet to the west of the site. The well was initially identified during Tighe & Bond's Phase I ESA March 2017. This well was likely associated with a former production well associated with the Saxony Mill which burned down on July 16, 1994. A review of the well conditions revealed that the well was disconnected and apparently not in use. No other apparent well heads were noted during the windshield survey within 1,000 feet of the site.

A search of well permit and completion reports from the DCP website for the Town of Vernon and Town of Ellington did not encounter well permits or potable water well completion reports for the site or within 500-feet of the site. The following table presents well completion reports that were encountered outside the 500-foot radius but inside the 1,000-foot radius search.

Date	Property	Distance (Approx.)	DCP Well Report Information
8-9-2001	Route 83 ROW	~550 feet (Northwest)	Abandonment of MW-3, 2-inch monitoring well
2-5-1996	180 Union Street (7-11 Convenience Store/ Gas Station)		Non-potable wells. Six-inch recovery well and three 2-inch monitoring wells for groundwater monitoring.
Date	**Property**	**Distance (Approx.)**	**DCP Well Report Information**
3-30-1971	13 Windsor Avenue	~690 feet (west)	Domestic Well Permit (#3902) for servicing 5 people. Bedrock well was completed to a depth of 127 feet below grade. Property currently has water service from the CT Water Co.

The North Central District Health Department (NCDHD) was contacted for file information regarding well installations, water testing and well abandonment at the properties listed above that the Connecticut Water Company did not have active service records. The following properties were searched: 7 Ertel Drive, 2 Charter Road, and 4

Charter Road in Ellington, CT and 4 Charter Road, 8 Charter Road in Vernon, CT. The NCDHD did not have information on-file for these properties.

Records for 13 Windsor Avenue were also requested to assess if additional information was available for the well completion report at the property. The Health Department had a copy of the Well Drilling Permit for 13 Windsor Avenue described in the table above. No additional well information was available for this property.

Additional efforts will be made to assess if the private well at 13 Windsor Avenue is in use at the property during Phase III ESA efforts in 2018.

Section 6
Phase III ESA Data Gaps

During the completion of the Phase III ESA, data gaps were identified in process of assessing the on-site and off-site impacts. CTDEEP requires that data gaps be fully investigated as part of the conceptual site model process prior to the remediation of a site.

Tighe & Bond has identified the data gaps during the Phase III ESA:

- Off-site Delineation of Coal Tar Impacts to North and West of Site: Coal tar impacts were encountered to the north of the site within the St. Joseph Church Parking lot within SB-15 and MW-20S between approximately 31.5 and 38 feet below grade below the water table. Coal tar impacts were encountered in SB-13 between 20 and 40 feet below grade at the northwestern site boundary. Concentrations of PAHs were detected above the SWPC in deep monitoring MW-18D and bedrock well MW-3BR at the northwest corner of the site and in MW-7S on the northeast corner of the site. ETPH was detected above the SWPC in MW-18D and MW-7S.

  Additional delineation of soil and groundwater impacts are needed in the northwest portion of the site and off-site to the north and west.

- Assessment of Soils in Vicinity of Gas Holder #1 and Gas Holder #2: Coal tar impacted soils were encountered inside the former Gas Holders above the water table. Impacted soils were encountered outside the former Gas Holders in SB-04 and SB-05 near the apparent water table.

  Additional investigations are proposed to assess coal tar impacts above the seasonal high-water table for compliance with the GB PMC.

- Delineation of Coal Tar/Petroleum Impacts Along the Sewer Line: Visually impacted soils with petroleum odors and coal-tar odors were observed near the brick sewer line that transverses the site from Maple Street to West Street from 5 feet to 20 feet below grade. Concentrations of ETPH, PAHs and/or metals (arsenic and lead) exceeded RSR criteria in soils and PAHs exceeded the SPWC in MW-5S at the southwestern corner of the Inner Substation.

  Additional off-site delineation of soil and groundwater impacts to the west are needed to assess the extent of impacts along the sewer line.

- Assessment of Extent of Impacted Soils within the Inner Substation Area: Soil containing fill materials were observed within surficial soil and soil borings completed within the Inner Substation. Concentrations of PAHs, ETPH and metals (arsenic and lead) were detected above RSR criteria. The vertical and lateral extent of impacts within subsurface soils requires further assessment within the Inner Substation.

- Extent of Impacted Soils within the Southern Outer Substation Area: Fill materials were encountered within southern portion of the Outer Substation in the vicinity of the substation driveway beneath the grassed area to the east of

the existing Control House, along the northern bank of the Hockanum River and within the overgrown portion of the site to the south of the Hockanum River abutting West Main Street. Soils in this area of the site contained concentrations of PAHs and/or ETPH above RSR criteria. Additional delineation is needed to assess the nature and extent of the fill materials.

- Seasonal Groundwater Variation: Assessment of the seasonal groundwater variation at the site. Previous groundwater sampling was completed by Northeast Utilities Service Company in April 1990 and February 1993. A comprehensive sampling during the seasonal high-water table condition is proposed to assess current groundwater conditions during the seasonal high groundwater condition at the site.

- Hockanum River Sediments: Additional sediment sampling is proposed within the Hockanum River to assess sediment concentrations near SED-06 where elevated ETPH and metals were detected. Additional sediment samples are proposed at the outfalls at Maple Avenue to assess upstream sediment sources to the Hockanum River. Reportedly, one stone outfall was constructed for discharge water from the Hockanum Mill. A second outfall conveys stormwater from upgradient areas.

- Water Supply Well Use at 13 Windsor Avenue: A water supply well record was identified for 13 Windsor Avenue in 1971. The property is currently serviced by the Connecticut Water Company. Additional efforts will be made to assess if the supply well is currently in use.

Section 7
VRP Schedule

Eversource submitted a VRP schedule, dated January 3, 2017, to CTDEEP in the 2016 CTDEEP Voluntary Remediation Program, Site Investigation and LEP Verification, Former Rockville Manufactured Gas Plant Site REM Id. No. 12390.

The following revised VRP schedule has been updated based upon the recently completed Phase III ESA at the site. A summary of activities that were completed in 2017 and proposed site investigation and remediation-related activities for 2018 and beyond is provided below.

Rockville Former MGP Site VRP Investigation and Remediation Schedule		
Task	**Completion Timeframe[1].**	**Notes**
Completed in 2017 Calendar Year		
Phase I Environmental Site Assessment (ESA)	1st Quarter	A Phase I ESA was identified in the Data Gap Analysis. Previous investigations and studies were previously completed; however, a formal Phase I ESA was not encountered.
On-Site Investigation	3rd and 4th Quarters	Phase III ESA investigations on-site and off-site were completed once access to private properties was secured and substation access was coordinated with Eversource. Water Well Supply Receptor Search completed.
Off-Site Investigation	2nd and 3rd Quarters	
Proposed Schedule for 2018 Calendar Year		
On-site Supplemental Phase III ESA Investigations	1st and 2nd Quarters	Additional investigations are needed to assess Phase III ESA data gaps
Off-site Supplemental Phase III ESA Investigations	1st to 3rd Quarters	Additional investigations are needed to assess Phase III ESA data gaps. Additional water supply well search
Evaluation of Remedial Alternatives and Costs	3rd Quarter	Evaluate various remedial alternatives such as capping and Monitored Natural Attenuation as well as active technologies
Proposed Schedule for 2019 Calendar Year		
Institutional Controls including application to CTDEEP for approval	1st Quarter	Evaluate Environmental Land Use Restrictions, Engineered Controls, and use of Alternative Criteria,

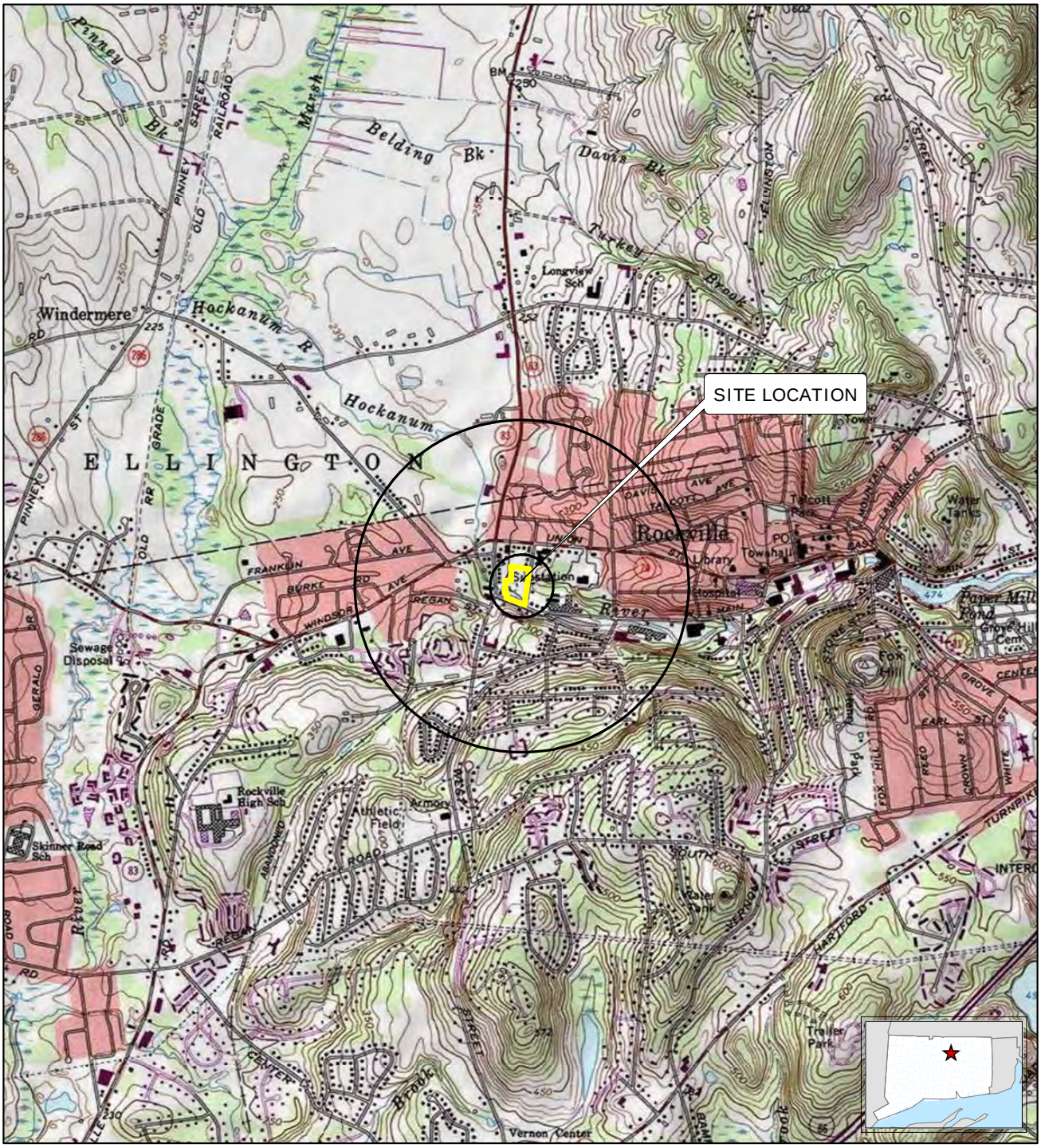
		Legal Assistance will be required
Remedial Action Plan	2nd Quarter	Prepare once Remedial Alternatives and Institutional Controls have been determined
Public Notice	3rd Quarter	30-day notice required
Bid Documents and Bidding	3rd – 4th Quarters	In accordance with Eversource procedures
Proposed Schedule for 2020 Calendar Year and Beyond		
Remedial Action	1st – 2nd Quarters	Assumes 6-month timeframe
LEP Verification	1st-3rd Quarters	Prescribed VRP Verification Form and Report
Groundwater Monitoring	To be determined	Long term groundwater monitoring may be required as part of an MNA Remedial Approach
Meetings and Reports		
CTDEEP Annual Reports	2018, 2019, 2020	Meetings with CTDEEP as needed for approvals
1. Timeframes to complete Tasks are best estimates. In the event that delays prevent the completion of a Task within the estimated Timeframe, CTDEEP will be notified.		

This VRP schedule will be revised annually as new data are acquired through the site investigation and remedial planning process.

Tighe & Bond will work with Eversource in 2018 to further assess data gaps identified during the course of the Phase III ESA with the goal of gaining a better understanding of the conceptual site model.

Tighe&Bond

APPENDIX A



Legend

Site Boundary

Tighe&Bond
Engineers | Environmental Specialists

Based on USGS Topographic Map for Rockville, CT Revised 1984.
Contour Interval Equals 10 Feet.
Circles indicate 500-foot and half-mile radii

1:24,000
0 1,000 2,000
Feet

N

FIGURE 1
SITE LOCATION MAP
Eversource Rockville
Former MGP Site
Rockville, Connecticut

December 2017

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N-0915

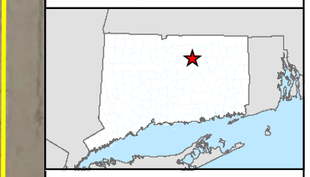


FIGURE 2:
CURRENT SITE CONDITIONS
AND HISTORIC STRUCTURES

LEGEND

- Stream
- Fence Line
- Historic Structure
- Sanitary Sewer Manhole
- Sanitary Sewer
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 20 40 Feet

1 inch = 40 feet

REFERENCES

1. Based on 2016 Statewide Leaf-Off Orthophotography, Courtesy of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Piesometer Locations in the Hockanum River. Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html

NOTES

SWPC - Surface Water Protection Criteria
RES VC - Residential Volitalization Criteria
I/C VC - Industrial Commercial Volitalization Criteria
* - Additional Polluting Substance Criteria

Eversource
Former Rockville MGP Site
Rockville, Connecticut

December 2017

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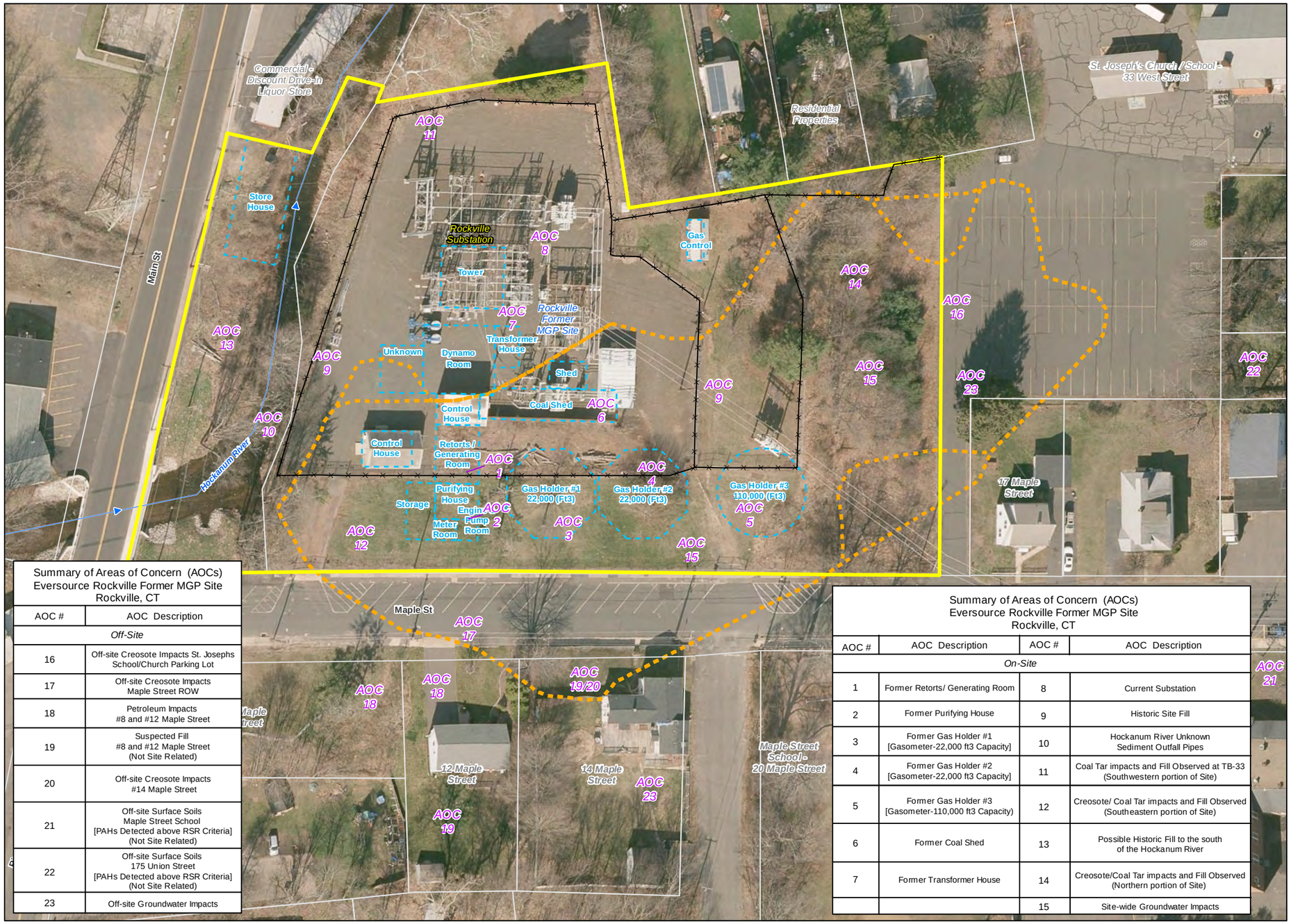

Summary of Areas of Concern (AOCs)
Eversource Rockville Former MGP Site
Rockville, CT

AOC #	AOC Description
Off-Site	
16	Off-site Creosote Impacts St. Josephs School/Church Parking Lot
17	Off-site Creosote Impacts Maple Street ROW
18	Petroleum Impacts #8 and #12 Maple Street
19	Suspected Fill #8 and #12 Maple Street (Not Site Related)
20	Off-site Creosote Impacts #14 Maple Street
21	Off-site Surface Soils Maple Street School [PAHs Detected above RSR Criteria] (Not Site Related)
22	Off-site Surface Soils 175 Union Street [PAHs Detected above RSR Criteria] (Not Site Related)
23	Off-site Groundwater Impacts

Summary of Areas of Concern (AOCs)
Eversource Rockville Former MGP Site
Rockville, CT

AOC #	AOC Description	AOC #	AOC Description
On-Site			
1	Former Retorts/ Generating Room	8	Current Substation
2	Former Purifying House	9	Historic Site Fill
3	Former Gas Holder #1 [Gasometer-22,000 ft3 Capacity]	10	Hockanum River Unknown Sediment Outfall Pipes
4	Former Gas Holder #2 [Gasometer-22,000 ft3 Capacity]	11	Coal Tar impacts and Fill Observed at TB-33 (Southwestern portion of Site)
5	Former Gas Holder #3 [Gasometer-110,000 ft3 Capacity)	12	Creosote/ Coal Tar impacts and Fill Observed (Southeastern portion of Site)
6	Former Coal Shed	13	Possible Historic Fill to the south of the Hockanum River
7	Former Transformer House	14	Creosote/Coal Tar impacts and Fill Observed (Northern portion of Site)
		15	Site-wide Groundwater Impacts

FIGURE **3**:
POTENTIAL AREAS OF CONCERN (AOC)

LEGEND

- Fence Line
- Historic Structure
- Site Boundary
- Approximate Lateral Extent of Creosote/Coal Tar Impacts
- Approximate Parcel Boundary
- AOC 17 — Area of Concern

LOCUS MAP



0 60
Feet
1 inch = 60 feet

NOTES

1. Based on 2016 Statewide Leaf-Off Orthophotography, Courtesy of University of Connecticut.
2. Figure 1 Surficial Soil, River Sediment and Test Boring Locations Performed During 1992, 1993 and 1994 at the Rockville Substation, Vernon, Connecticut Prepared by Northeast Utilities Service Co. dated 1/25/95.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html

See Table 1: Area of Concern (AOC) and Conceptual Site Model Summary Table for AOC descriptions.

Eversource Rockville 14W
Former MGP Site
Rockville, Connecticut

January 2018

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N-0915

FIGURE 4: SAMPLE LOCATION SUMMARY

LEGEND

Previous Site Investigations

- Sediment Sample
- Surface Water Sample
- Monitoring Well
- Soil Boring
- Subsurface Soil
- Vapor Well

Phase III ESA Sample Locations

- Surface Soil Sample
- Sediment Sample
- Surface Water Sample
- Soil Boring Location
- Test Pit Location
- Overburden Monitoring Well ("S", "D") and Bedrock Monitoring Well ("BR")

- DNAPL (Tar) - Staining / Globules Observed During the Gauging and Development Activities
- Petroleum Impacts (Staining or Odor) in Soils
- Visual Creosote/Coal Tar in Soils
- Creosote/Coal Tar Odor in Soils
- No Visual Impact in Soils
- RSR Exceedance
- Stream Flow
- Fence Line
- Historic Structure
- Approximate Lateral Extent of Creosote/Coal Tar Impacts
- Site Boundary
- Approximate Parcel Boundary
- Sanitary Sewer Line
- Sanitary Sewer Manhole

LOCUS MAP



0 30 60 Feet

1 inch = 30 feet

REFERENCES

1. Based on 2012 Statewide Leaf-Off Orthophotography, Courtesy of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Piezometer Locations in the Hockanum River, Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html
4. Surveys Conducted by Kratzert, Jones & Associates in 2016 and 2017

NOTES

1. See Table 1: Area of Concern (AOC) and Conceptual Site Model Summary Table for AOC descriptions.
2. R = Monitoring Well Re-Install
3. "S" wells are screened in overburden at the water table.
"D" wells are screened in overburden at the bedrock interface.
"BR" wells are proposed to be installed within the bedrock.

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FIGURE 5:
BEDROCK SURFACE ELEVATION AND CONTOUR MAP

LEGEND

- MW-10BR 171.57' — Bedrock Surface Elevation (w/ Approximate North American Vertical Datum Elevation 1988)
- Inferred Bedrock Slope Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 30 60 Feet

1 inch = 60 feet

NOTES

Bedrock Elevations are Approximate and Based Upon Dirlling Observations and Boring Logs From Previouse Investigations
See Boring Logs For Depth information and Drilling Observations

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REFERENCES:
1. Based on 2016 Statewide Leaf-Off Orthophotography, Courtesty of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Pieometer Locations in the Hockanum River.
Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html
4. Surveys Conducted by Kratzert, Jones & Associates in 2016 and 2017

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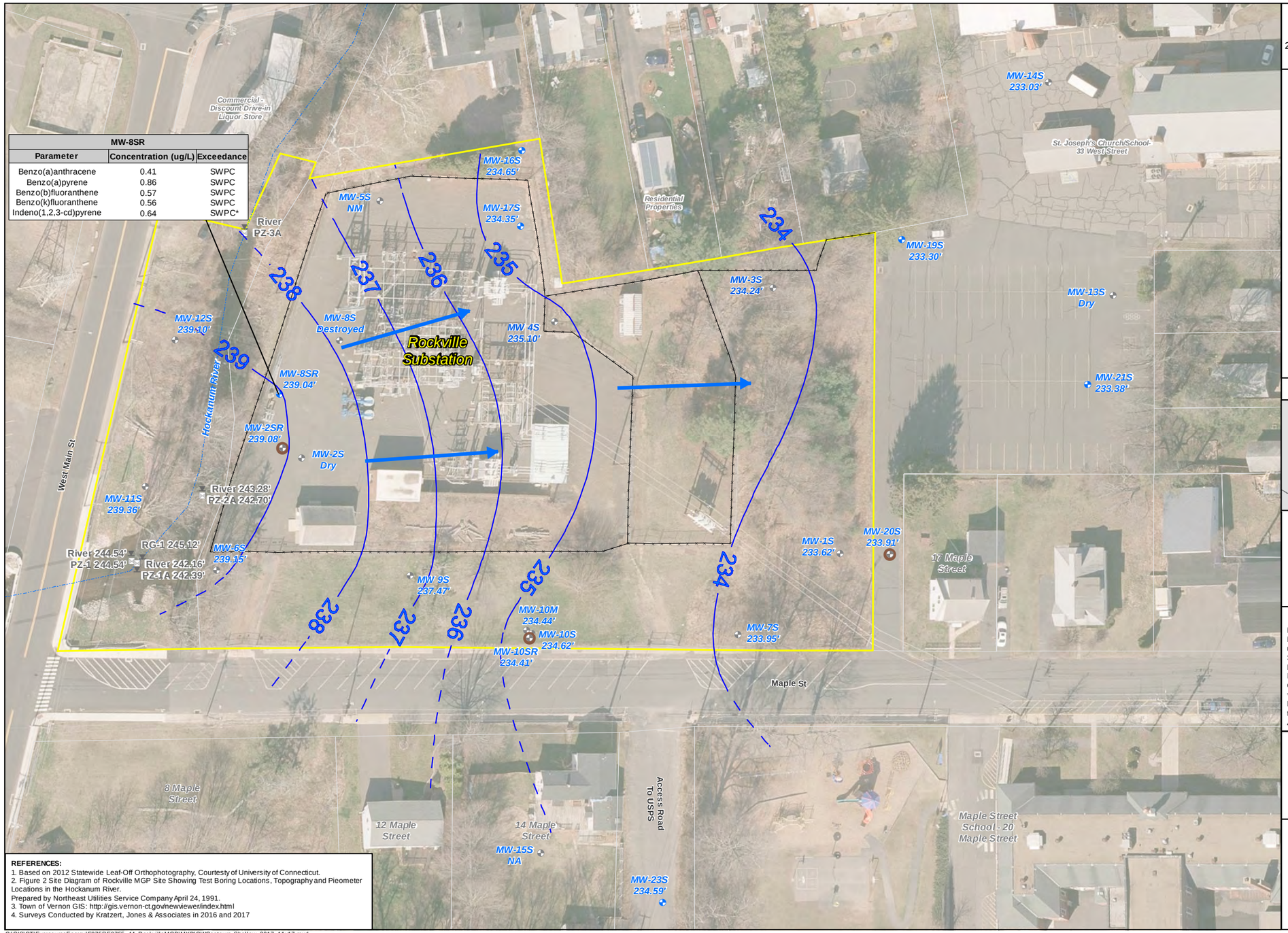
MW-8SR		
Parameter	**Concentration (ug/L)**	**Exceedance**
Benzo(a)anthracene	0.41	SWPC
Benzo(a)pyrene	0.86	SWPC
Benzo(b)fluoranthene	0.57	SWPC
Benzo(k)fluoranthene	0.56	SWPC
Indeno(1,2,3-cd)pyrene	0.64	SWPC*



REFERENCES:
1. Based on 2012 Statewide Leaf-Off Orthophotography, Courtesy of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Pieometer Locations in the Hockanum River.
Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html
4. Surveys Conducted by Kratzert, Jones & Associates in 2016 and 2017

FIGURE 6: SHALLOW WATER TABLE CONTOURS AND 2017 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW 3S 234.24' — Monitoring Well Gauged and Sampled in 2017 (w/ North American Vertical Datum Elevation 1988)
- Monitoring Well Gauged But Not Sampled in 2017
- NAPL Detected in Monitoring Well During 2016 or 2017 Gauging Event
- Piezometer
- River Gauge and River Level Measurements
- Groundwater Elevation Contour (November 10, 2017)
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP

0 30 60 Feet

1 inch = 60 feet

NOTES

NM - Not Measured
NA -Not Accessible (Not Measured)
ug/L - Micrograms Per Liter
SWPC - Surface Water Protection Criteria
RES VC - Residential Volitalization Criteria
I/C VC - Industrial Commercial Volitalization Criteria
* - Additional Polluting Substance Criteria
Depth To Groundwater Ranged From ~8 Feet to ~34 Feet. See Table 1 For Screen Intervals And Depth To Water Measurements

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Former Rockville MGP Site
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REFERENCES:
1. Based on 2012 Statewide Leaf-Off Orthophotography, Courtesy of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Pieometer Locations in the Hockanum River.
Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html
4. Surveys Conducted by Kratzert, Jones & Associates in 2016 and 2017

FIGURE 7: DEEP AQUIFER CONTOURS AND 2017 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW-14D 232.94' — Monitoring Well Gauged and Sampled in 2017 (w/ North American Vertical Datum Elevation 1988)
- Monitoring Well Gauged But Not Sampled in 2017
- NAPL Detected in Monitoring Well During 2016 or 2017 Gauging Event
- Groundwater Elevation Contour (November 10, 2017)
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 30 60 Feet

1 inch = 60 feet

NOTES

NM - Not Measured
NA -Not Accessible (Not Measured)
ug/L - Micrograms Per Liter
SWPC - Surface Water Protection Criteria
RES VC - Residential Volitalization Criteria
I/C VC - Industrial Commercial Volitalization Criteria
* - Additional Polluting Substance Criteria
Depth To Groundwater Ranged From ~10 Feet to ~31 Feet. See Table 1 For Screen Intervals And Depth To Water Measurements

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Former Rockville MGP Site
Rockville, Connecticut

December 2017

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MW-3BR		
Parameter	Concentration (ug/L)	Exceedance
Acenaphthylene	1.6	SWPC

REFERENCES:
1. Based on 2012 Statewide Leaf-Off Orthophotography, Courtesty of University of Connecticut.
2. Figure 2 Site Diagram of Rockville MGP Site Showing Test Boring Locations, Topography and Pieometer Locations in the Hockanum River.
Prepared by Northeast Utilities Service Company April 24, 1991.
3. Town of Vernon GIS: http://gis.vernon-ct.gov/newviewer/index.html
4. Surveys Conducted by Kratzert, Jones & Associates in 2016 and 2017

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FIGURE 8: BEDROCK AQUIFER CONTOURS AND 2017 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW-10BR 234.27' — Monitoring Well (w/ North American Vertical Datum Elevation 1988)
- Groundwater Contour Measured on November 10, 2017
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 30 60 Feet

1 inch = 60 feet

NOTES

NM - Not Measured
NA -Not Accessible (Not Measured)
ug/L - Micrograms Per Liter
SWPC - Surface Water Protection Criteria
RES VC - Residential Volitalization Criteria
I/C VC - Industrial Commercial Volitalization Criteria
* - Additional Polluting Substance Criteria
Depth To Groundwater Ranged From ~9 Feet to ~23 Feet. See Table 1 For Screen Intervals And Depth To Water Measurements

Eversource
Former Rockville MGP Site
Rockville, Connecticut

December 2017

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LEGEND

- Site Boundary
- Approximate Lateral Extent of Creosote/Coal Tar Impacts
- Approximate Parcel Boundary
- Town Boundary
- Parcel with No Current Water Service with Connecticut Water (Undeveloped)
- Parcel with No Current Water Service with Connecticut Water (Developed)
- 500' Buffer
- 1000' Buffer

1:3,600

0 150 300

Feet

N

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1. Based on 2016 Statewide Orthophotography, Courtesy of CTECO.
2. Unshaded parcels within buffer zones are supplied with water by the Connecticut Water Company.
3. Connecticut Water Company Service connection records searched 11/17/17
4. Water Well Completion Reports for the Town of Vernon from 1977 through 2016 available from Department of Consumer Protection (DCP)
5. GIS Parcels: Town of Vernon and Town of Ellington Tax assessor property information

FIGURE 9
WATER WELL RECEPTOR SURVEY SUMMARY

Vernon & Ellington,
Connecticut

December 2017

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N-0915

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APPENDIX B

Well ID	Location	Monitoring Well Construction				10/5/2016			12/2/2016		11/10/2017		Notes
		Top of Well Casing or Measuring Point Elevation (ft. NAVD 88)	Ground Elevation (ft. MSL)	Completion Depth (ft. below grade)	Screen Interval (ft. below grade)	Groundwater Table Elevation (ft. NAVD 88)	Depth to Water (ft.)	Product Thickness (ft.)	Depth to water (ft.)	Groundwater and River Elevation (ft. NAVD88)	Depth to water (ft.)	Groundwater and River Elevation (ft. NAVD88)	
Monitoring Well Locations													
MW-1S	Overgrown Area- Outer Substation	259.37	261.15	30	20-30	231.82	26.44	-	26.88	232.49	25.75	233.62	
MW-1D		259.59	261.24	75	65-75	187.24	26.44	-	26.79	232.80	25.57	234.02	
MW-2S	Inner Substation	249.01	249.01	17	7-17	-	-	-	-	-	-	-	Obstruction found in well.
MW-2SR		247.10	247.48	17	7-17	-	-	-	-	-	8.02	239.08	Staining and globules of tar observed in development water
MW-2D		247.62	249.01	32	22-32	218.29	11.53	0.01	12.01	235.61	10.64	236.98	0.01' of product observed at the water table.
MW-2BR		247.24	247.44	60	50-60	-	-	-	-	-	9.39	237.85	
MW-3S	Wooded Area- Outer Substation	250.12	250.54	20	10-20	230.69	16.80	-	16.97	233.15	15.88	234.24	
MW-3D		251.58	250.68	78	68-78	169.08	17.81	-	19.11	232.47	17.91	233.67	Globules of tar observed in development water
MW-3BR		252.73	249.14	100	90-100	-	-	-	-	-	17.18	235.55	
MW-4S	Grassed Area- Outer Substation	249.25	248.81	15	5-15	231.80	15.00	-	15.33	233.92	14.15	235.10	
MW-4D		249.40	248.75	59.5	49.5-59.5	186.15	14.96	-	15.04	234.36	14.03	235.37	
MW-5S	Inner Substation	244.74	246.37	15	5-15	231.57	8.51	-	8.5	236.24	-	-	Orange sediment like precipitate noticed at water level
MW-5D		244.56	246.32	28	18-28	218.18	9.93	-	10.2	234.36	-	-	
MW-6S	Grassed Area- Outer Substation	250.31	248.76	12	2-12	233.86	11.69	-	12.04	238.27	11.16	239.15	
MW-6D		249.69	249.00	35	25-35	222.67	13.82	-	14.34	235.35	13.11	236.58	
MW-7S		262.13	263.81	33	23-33	230.80	29.05	-	29.41	232.72	28.18	233.95	
MW-7D		265.01	261.76	83	73-83	-	-	-	-	-	30.92	234.09	
MW-8S		248.43	248.56	15	5-15	-	-	-	-	-	-	-	Unable to be located, likely destroyed.
MW-8SR		246.29	246.69	17	7-17	-	-	-	-	-	7.25	239.04	
MW-9S		254.17	255.75	25	15-25	231.10	16.33	-	16.61	237.56	16.7	237.47	
MW-9D		259.95	255.63	70	60-70	195.03	20.29	-	20.62	239.33	-	-	
MW-10S		257.82	259.42	25	15-25	234.49	24.11	-	24.6	233.22	23.2	234.62	
MW-10SR		257.68	258.04	25	15-25	-	-	-	-	-	23.27	234.41	Staining and globules of tar observed in development water
MW-10M		257.35	259.08	60	50-60	199.03	23.81	-	24.18	233.17	22.91	234.44	
MW-10D		257.33	258.98	84	74-84	174.88	23.86	-	24.23	233.10	24.07	233.26	Heavy staining observed on the tape of the meter. Globules of tar observed water pumped during DNAPL Assessment
MW-10BR		257.33	257.57	100	90-100	-	-	-	-	-	23.06	234.27	
MW-11S	West Main Street Parcel	252.17	251.20	17.5	7.5-17.5	231.25	13.29	-	13.62	238.55	12.81	239.36	
MW-11D		251.91	251.10	24	19-24	225.39	13.02	-	13.38	238.53	12.56	239.35	
MW-12S		251.54	250.80	16	6-16	231.80	12.90	-	13.19	238.35	12.44	239.10	
MW-12D		251.69	250.90	22	17-22	226.88	12.71	-	13.02	238.67	12.27	239.42	
MW-13S	St. Joseph Church Parking Lot	252.16	252.43	18.2	15-25	-	-	-	-	-	Dry	-	
MW-13D		253.38	253.81	73	19.40								Unable to be located. Possibly paved over.
MW-14S		245.11	245.40	19.58	10-20	-	-	-	-	-	12.08	233.03	
MW-14D		244.90	245.36	76.21	67-77	-	-	-	-	-	11.96	232.94	
MW-16S	Outer Substation Area	246.82	244.86	17	7-17	-	-	-	-	-	12.17	234.65	
MW-17S		245.72	246.01	17	7-17	-	-	-	-	-	11.37	234.35	
MW-18D		254.03	251.16	82	72-82	-	-	-	-	-	20.7	233.33	
MW-19S	St. Joseph Church Parking Lot	251.88	252.16	24	14-24	-	-	-	-	-	18.58	233.30	
MW-20S		260.82	260.52	34	24-34	-	-	-	-	-	26.91	233.91	Staining and globules of tar observed in development water
MW-21S		255.11	255.30	30	20-30	-	-	-	-	-	21.73	233.38	
MW-23S	USPS ROW	268.98	269.20	39	29-39	-	-	-	-	-	34.39	234.59	
Hockanum River Piezometers and Gauging Locations													
RG-1 (River Gauge)	Hockanum River	245.12							1.1	244.02	-	-	Nov. 2017- Damaged by fallen tree.
PZ-1		244.54							2.01	242.53	-	-	Nov. 2017- Damaged by fallen tree.
PZ-1 River Level		244.54							0.45	244.09	-	-	Nov. 2017- Damaged by fallen tree.
PZ-1A		247.96		2 ft. below river bottom	1 to 2 ft. below river bottom				5.26	242.70	5.57	242.39	
PZ-1A River Level		247.96							3.87	244.09	3.8	244.16	
PZ-2A		246.30		2 ft. below river bottom	1 to 2 ft. below river bottom				4.16	242.14	3.60	242.70	
PZ-2A River Level		246.30							3.12	243.18	3.02	243.28	
PZ-3A		245.15		2 ft. below river bottom	1 to 2 ft. below river bottom				4.87	240.28	-	-	Nov. 2017- Damaged by high water.
PZ-3A River Level		245.15							3.44	241.71	-	-	Nov. 2017- Damaged by high water.

Notes:

NA -Not Applicable

* - Data Unavailable

"S" denotes a water table monitoring well (Shallow Groundwater Zone)

"M" denotes an intermediate monitoring well (Intermediate Groundwater Zone)

"D" denotes a deep monitoring well (Intermediate Groundwater Zone)

red text- indicates a well was destroyed or unusable.

Denotes product observed in the well : measured or observed during development or pumping.

Elevation for measuring point was surveyed by Kratzer Jones Associates in 2016 and 2017. Elevations in NAVD 88.

MSL- mean sea level-Elevations obtained from Eversource survey information: Rockville Manufactured Gas Plant Site Investigation Report dated March 1992

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)		CT DEEP RSRs			SB-01 (26.5-28.5')	SB-02 (19-20')	SB-03 (10-12')	SB-04 (18-20')	SB-05 (20-21')	SB-06 (13-14')	SB-07 (5-7')	SB-07 (10-11')	SB-08 (2-4')	SB-08 (9-10')	SB-09A(5-7')	SB-09A(13-14')	SB-10 (5-7')	SB-11 (5-7')	SB-12 (20-22')
Laboratory ID					BZ09607	BY98840	BZ04252	BZ28623	BZ04865	BZ04253	BZ30804	BZ30805	BZ04254	BZ04255	BY98231	BY98232	BZ28212	BZ28622	BZ00337
Sample Date					9/26/2017	9/11/2017	9/18/2017	10/27/2017	9/19/2017	9/18/2017	11/1/2017	11/1/2017	9/18/2017	9/18/2017	9/8/2017	9/8/2017	10/25/2017	10/27/2017	9/13/2017
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
CT ETPH (mg/Kg)	500	2,500	2,500	NA	ND <53	**5,700**	**11,000**	ND <260	**5,100**	**52,000**	470	**4,700**		ND <54	**760**	-	ND <67	**4,100**	ND <62
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																			
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0056	2.0	**89**	ND <0.0054	**74**	**300**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	8.0	ND <0.0060
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0056	0.94	23	ND <0.0054	21	**84**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	2.8	ND <0.0060
2-Isopropyltoluene	NE	NE	NE	NA	ND <0.0056	ND <1.2	ND <0.73	ND <0.0054	ND <5	ND <4.6	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	ND <0.49	ND <0.0060
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	ND <0.0056	ND <1.2	**7.5**	ND <0.0054	ND <6.7	ND <46	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	1.3	ND <0.0060
Benzene	21	200	0.2	NA	ND <0.0056	ND <0.2	**55**	ND <0.0054	ND <0.67	**1,900**	ND <0.0058	-	-	ND <0.0052	-	ND <0.2	ND <0.0058	ND <0.49	ND <0.0060
Butylbenzene, n-	500*	1000*	70*	NA	ND <0.0056	ND <1.2	ND <7.3	ND <0.0054	ND <6.7	ND <46	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	0.3	ND <0.0060
Butylbenzene, sec-	500*	1000*	70*	NA	ND <0.0056	ND <1.2	ND <7.3	ND <0.0054	ND <6.7	ND <7	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	ND <0.49	ND <0.0060
Ethylbenzene	500	1,000	10.1	NA	ND <0.0056	ND <1.2	**120**	ND <0.0054	**14**	**1,400**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	1.5	ND <0.0060
Isopropylbenzene (cumene)	500*	1000*	5*	NA	ND <0.0056	ND <1.2	**15**	ND <0.0054	ND <6.7	**38**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	0.69	ND <0.0060
m,p-Xylene[1]	NE	NE	NE	NA	ND <0.0056	ND <1.2	130	ND <0.0054	89	870	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	2.9	ND <0.0060
Methylene chloride	82	760	1	NA	ND <0.011	ND <1.2	ND <7.3	ND <0.011	ND <6.7	ND <46	ND <0.012	-	-	ND <0.01	-	ND <0.53	ND <0.012	ND <0.99	ND <0.012
n-Propylbenzene	500*	1000*	10*	NA	ND <0.0056	ND <1.2	6.8	ND <0.0054	5.8	**30**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	0.29	ND <0.0060
o-Xylene[1]	NE	NE	NE	NA	ND <0.0056	ND <1.2	63	ND <0.0054	37	390	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	2.4	ND <0.0060
Styrene	500	1,000	20	NA	ND <0.0056	ND <1.2	ND <7.3	ND <0.0054	**28**	ND <46	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	ND <0.49	ND <0.0060
Toluene	500	1,000	67	NA	ND <0.0056	ND <1.2	**150**	ND <0.0054	5.3	**2,000**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	0.4	ND <0.0060
Total Xylenes	500	1,000	19.5	NA	ND <0.0056	ND <1.2	**193**	ND <0.0054	**126**	**1,260**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	5.3	ND <0.0060
Naphthalene	1,000	2,500	56	NA	ND <0.0056	15	**1,000**	0.0096	**1,100**	**8,500**	ND <0.0058	-	-	ND <0.0052	-	ND <0.27	ND <0.0058	**91**	ND <0.0060
SPLP VOCs (ug/L)																			
1,2,4-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Isopropyltoluene	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Isopropyltoluene (cymene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	NA	NA	NA	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, sec-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	NA	NA	NA	7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene (cumene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	NA	NA	NA	500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	NA	NA	NA	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	NA	NA	NA	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	NA	NA	NA	5,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs (mg/Kg)																			
Aroclor-1268	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	ND <0.53	ND <0.54	2.51	ND <0.52	ND <0.58	7.64	2.1	-	-	ND <0.55	6.28	-	ND <0.68	4.15	ND <0.63
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-

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mg/Kg - milligrams per kilogram
mg/L - milligrams per liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
PCB - Polychlorinated Biphenyl
SPLP - Synthetic Precipitation Leaching Procedure
ND - Not detected above laboratory limits
NE - CTDEEP RSR Criteria not established
NA - Not Applicable
* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.
** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.
[1] - Xylene criteria apply to Total Xylenes only
^ - DEC does not apply to samples collected at depths greater than 15'
~ - PMC does not apply to sammples collected below the seasonal high watertable
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
Bolded and boxed - Concentration exceeds RSR Criteria
Bolded Only - Concentration exceeds APS Criteria
- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)					SB-01 (26.5-28.5')	SB-02 (19-20')	SB-03 (10-12')	SB-04 (18-20')	SB-05 (20-21')	SB-06 (13-14')	SB-07 (5-7')	SB-07 (10-11')	SB-08 (2-4')	SB-08 (9-10')	SB-09A(5-7')	SB-09A(13-14')	SB-10 (5-7')	SB-11 (5-7')	SB-12 (20-22')
Laboratory ID	CT DEEP RSRs				BZ09607	BY98840	BZ04252	BZ28623	BZ04865	BZ04253	BZ30804	BZ30805	BZ04254	BZ04255	BY98231	BY98232	BZ28212	BZ28622	BZ00337
Sample Date					9/26/2017	9/11/2017	9/18/2017	10/27/2017	9/19/2017	9/18/2017	11/1/2017	11/1/2017	9/18/2017	9/18/2017	9/8/2017	9/8/2017	10/25/2017	10/27/2017	9/13/2017
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
Semi-VOCs (mg/Kg)																			
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.24	**120**	**540**	ND <0.24	**150**	**2,200**	ND <0.26	-	ND <5.5	ND <0.26	0.74	-	ND <0.31	**93**	ND <0.29
Acenaphthene	1000*	2500*	84*	NA	ND <0.24	9.4	**110**	ND <0.24	8.6	**570**	ND <0.26	-	ND <8.4	ND <0.26	0.39	-	ND <0.31	33	ND <0.29
Acenaphthylene	1,000	2,500	84	NA	ND <0.24	67	50	1.6	**89**	**730**	1.2	-	ND <13	ND <0.26	2	-	ND <0.31	8.2	ND <0.29
Anthracene	1,000	2,500	400	NA	ND <0.24	42	58	ND <0.24	39	**520**	0.38	-	16	0.28	2.9	-	ND <0.31	16	ND <0.29
Benz(a)anthracene	1	7.8	1	NA	ND <0.24	**37**	**29**	ND <0.24	**20^**	**270**	**1.2**	-	**50**	0.65	**12**	-	ND <0.31	**10**	ND <0.29
Benzo(a)pyrene	1	1	1	NA	ND <0.24	**37**	**19**	0.82	**17**	**220**	**1.8**	-	**44**	0.53	**13**	-	ND <0.31	**9.6**	ND <0.29
Benzo(b)fluoranthene	1	7.8	1	NA	ND <0.24	**18**	ND <11	0.34	**7.7**	**140**	**1.8**	-	**38**	0.46	**9.1**	-	ND <0.31	**5**	ND <0.29
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	ND <0.24	**20**	ND <11	0.8	**8.6^**	**110**	**2.7**	-	**28**	0.39	**6.2**	-	ND <0.31	**5.2**	ND <0.29
Benzo(k)fluoranthene	8.4	78	1	NA	ND <0.24	**21**	**14**	0.27	**11^**	**150**	**1.7**	-	**39**	0.52	**4.6**	-	ND <0.31	**5.6**	ND <0.29
Carbazole	31*	290*	1*	NA	ND <0.35	ND <2.8	ND <6.5	ND <0.34	ND <3	ND <52	ND <0.37	-	ND <18	ND <0.2	1	-	ND <0.45	ND <2	ND <0.42
Chrysene	84*	780*	1*	NA	ND <0.24	**37**	**33**	ND <0.24	**20**	**280**	**1.6**	-	**45**	0.58	**11**	-	ND <0.31	**12**	ND <0.29
Dibenz(a,h)anthracene	1*	1*	1*	NA	ND <0.24	**3.7**	ND <5.2	ND <0.24	ND <5.3	ND <42	0.46	-	ND <13	ND <0.26	**2.1**	-	ND <0.31	ND <3.4	ND <0.29
Dibenzofuran	68*	1000*	1.4*	NA	ND <0.24	ND <5	**12**	ND <0.24	**6.1**	ND <91	ND <0.26	-	ND <13	ND <0.2	1.2	-	ND <0.31	ND <1.4	ND <0.29
Fluoranthene	1,000	2,500	56	NA	ND <0.24	**75**	51	ND <0.24	42	**560**	1	-	**66**	1	16	-	ND <0.31	19	ND <0.29
Fluorene	1,000	2,500	56	NA	ND <0.24	**59**	51	ND <0.24	52	**660**	ND <0.26	-	ND <13	ND <0.26	1.5	-	ND <0.31	13	ND <0.29
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	ND <0.24	**19**	ND <11	0.74	**7.5**	**91**	**1.9**	-	**27**	0.33	**6.3**	-	ND <0.31	**4.6**	ND <0.29
Naphthalene	1,000	2,500	56	NA	ND <0.24	**110**	**950**	ND <0.24	**420**	**7,000**	0.42	-	ND <13	ND <0.26	0.88	-	ND <0.31	**84**	ND <0.29
Pentachlorophenol	5.1	48	1	NA	ND <0.35	ND <2.7	ND <6.1	ND <0.34	ND <2.9	ND <49	0.67	-	ND <6.9	ND <0.37	ND <0.37	-	ND <0.45	ND <1.8	ND <0.42
Phenanthrene	1,000	2,500	40	NA	ND <0.24	**120**	**190**	ND <0.24	**140**	**1,700**	0.61	-	**45**	0.69	13	-	ND <0.31	**58**	ND <0.29
Pyrene	1,000	2,500	40	NA	ND <0.24	**110**	**74**	ND <0.24	**60**	**790**	1.8	-	**69**	0.96	17	-	ND <0.31	30	ND <0.29
SPLP Semi-VOCs (ug/L)																			
2-Methylnaphthalene	NA	NA	NA	280*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	NA	NA	NA	4,200*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	NA	NA	NA	4,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	NA	NA	NA	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	NA	NA	NA	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	NA	NA	NA	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	NA	NA	NA	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	NA	NA	NA	4.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	NA	NA	NA	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	NA	NA	NA	48*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	NA	NA	NA	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	NA	NA	NA	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	NA	NA	NA	2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	NA	NA	NA	2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals (mg/Kg)																			
Antimony	27	8,200	NA	NA	ND <3.4	ND <3.3	ND <4.0	ND <3.1	ND <3.5	ND <4.1	ND <3.5	-	-	ND <3.7	ND <3.6	-	ND <4.4	ND <4.7	ND <4.3
Arsenic	10	10	NA	NA	0.97	1.5	7.5	0.7	1.44	8.35	8.41	-	-	2.29	3.92	-	1.35	**13.8**	ND <0.86
Barium	4,700	140,000	NA	NA	90.1	42.8	49.8	32.8	39.7	64.6	69.1	-	-	28.7	53.5	-	51.1	130	24.5
Beryllium	2	2	NA	NA	0.46	0.29	0.41	0.29	0.3	0.37	0.38	-	-	0.5	0.37	-	ND <0.36	0.52	ND <0.34
Cadmium	34	1,000	NA	NA	ND <0.34	ND <0.33	ND <0.40	ND <0.31	ND <0.35	0.73	0.37	-	-	ND <0.37	0.39	-	0.81	3.5	ND <0.43
Chromium			NA	NA	23.6	14.3	17.9	9.62	12.8	18.1	18.5	-	-	16.5	13.6	-	22.2	19.1	6.08
Copper	2,500	76,000	NA	NA	36.1	16.7	21	12	7.57	37.5	44.9	-	-	11.1	20.3	-	14.1	41.6	3.94
Lead	400	1,000	NA	NA	6.02	2.92	49.9	5.17	4.19	209	86.8	-	-	2.57	41.4	-	4.46	**5,180**	2.56
Mercury	20	610	NA	NA	ND <0.03	ND <0.03	0.06	ND <0.03	ND <0.03	9.19	0.36	-	-	ND <0.03	0.56	-	ND <0.03	0.29	ND <0.03
Nickel	1,400	7,500	NA	NA	13.7	10.9	9.67	9.76	8.59	9.9	12.3	-	-	9.23	13.8	-	8.18	13.1	2.87
Silver	340	10,000	NA	NA	ND <0.34	ND <0.33	ND <0.40	ND <0.31	ND <0.35	ND <0.41	ND <0.35	-	-	ND <0.37	ND <0.36	-	ND <0.44	ND <0.47	ND <0.43
Vanadium	470	14,000	NA	NA	29.9	23	27.4	16.6	23.1	25.9	31.1	-	-	38.6	19.9	-	53.3	33.9	13.5
Zinc	20,000	610,000	NA	NA	29.4	24.8	75.4	18.8	20	281	100	-	-	32.8	77.2	-	49.5	1,990	7.72
SPLP Metals (mg/L)																			
Antimony	NA	NA	0.06	NA	-	ND <0.005	-	-	ND <0.005	-	-	-	-	-	ND <0.005	-	ND <0.005	ND <0.005	-
Arsenic	NA	NA	0.5	NA	-	ND <0.004	ND <0.004	-	ND <0.004	0.024	-	-	-	-	ND <0.004	-	ND <0.004	ND <0.004	-
Barium	NA	NA	10	NA	-	0.022	0.016	-	0.014	ND <0.010	-	-	-	-	0.027	-	0.06	0.041	-
Beryllium	NA	NA	0.04	NA	-	ND <0.001	-	-	ND <0.001	-	-	-	-	-	ND <0.001	-	ND <0.001	ND <0.001	-
Cadmium	NA	NA	0.05	NA	-	ND <0.005	ND <0.005	-	ND <0.005	ND <0.005	-	-	-	-	ND <0.005	-	ND <0.005	ND <0.005	-
Chromium	NA	NA	0.5	NA	-	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	-	-	-	-	ND <0.010	-	ND <0.010	ND <0.010	-
Copper	NA	NA	13	NA	-	ND <0.010	-	-	ND <0.010	-	-	-	-	-	ND <0.010	-	ND <0.010	ND <0.010	-
Lead	NA	NA	0.15	NA	-	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	-	-	-	-	0.021	-	ND <0.010	0.101	-
Mercury	NA	NA	0.02	NA	-	ND <0.0005	ND <0.0005	-	ND <0.0005	ND <0.0005	-	-	-	-	0.0005	-	ND <0.0005	ND <0.0005	-
Nickel	NA	NA	1	NA	-	ND <0.010	-	-	ND <0.010	-	-	-	-	-	ND <0.010	-	ND <0.010	ND <0.010	-
Silver	NA	NA	0.36	NA	-	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	-	-	-	-	ND <0.010	-	ND <0.010	ND <0.010	-
Vanadium	NA	NA	0.5	NA	-	ND <0.010	-	-	ND <0.010	-	-	-	-	-	ND <0.010	-	ND <0.010	ND <0.010	-
Zinc	NA	NA	50	NA	-	ND <0.010	-	-	0.025	-	-	-	-	-	0.026	-	ND <0.010	0.232	-

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~ - PMC does not apply to sammples collected below the seasonal high watertable

Only compounds detected are summarized in the table (compounds that are not listed were not detected)

Bolded and boxed - Concentration exceeds RSR Criteria

Bolded Only - Concentration exceeds APS Criteria

- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)					SB-13 (14-15')	DUP 2	SB-13 (25.5-27.5')	SB-14 (18-19')	SB-14 (23-24')	SB-15 (24-25')	SB-16 (22-24')	SB-16 (30-32')	SB-17 (24-26')	SB-18 (19-20')	SB-19 (12-14')	SB-20 (0-6")	SB-21 (0.5-2.5')	SB-22 (0-6")	SB-23 (2-4')
Laboratory ID					BZ13432	BZ13434	BZ13433	BZ05324	BZ05325	BZ07948	BZ05326	BZ05327	BZ12384	BZ18023	BZ19753	BZ12383	BY98841	BZ17500	BY98842
Sample Date					10/2/2017	10/2/2017	10/2/2017	9/20/2017	9/20/2017	9/22/2017	9/20/2017	9/20/2017	9/29/2017	10/9/2017	10/11/2017	9/29/2017	9/11/2017	10/3/2017	9/11/2017
Duplicate					DUP 2	SB-13 (14-15)	-	-	-	-	-	-	-	-	-	-	-	-	-
	CT DEEP RSRs																		
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
CT ETPH (mg/Kg)	500	2,500	2,500	NA	ND <53	ND <55	25,000	ND <53	500	ND <51	ND <52	ND <54	ND <60	**4,600**	**8,800**				
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	1.6	1.2	-	-	-	-
VOCs (mg/Kg)																			
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0043	ND <0.0041	300	ND <0.0050	1.9	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	19	0.89	-	-	-	-
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0043	ND <0.0041	110	ND <0.0050	0.61	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	6.9	ND <1.6	-	-	-	-
2-Isopropyltoluene	NE	NE	NE	NA	ND <0.0043	ND <0.0041	ND <6.2	ND <0.0050	0.0088	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <5	ND <1.6	-	-	-	-
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	ND <0.0043	ND <0.0041	ND <62	ND <0.0050	0.097	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
Benzene	21	200	0.2	NA	ND <0.0043	ND <0.0041	100	ND <0.0050	0.082	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <0.61	ND <0.2	-	-	-	-
Butylbenzene, n-	500*	1000*	70*	NA	ND <0.0043	ND <0.0041	ND <62	ND <0.0050	0.036	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
Butylbenzene, sec-	500*	1000*	70*	NA	ND <0.0043	ND <0.0041	ND <62	ND <0.0050	0.014	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
Ethylbenzene	500	1,000	10.1	NA	ND <0.0043	ND <0.0041	240	ND <0.0050	1.2	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	**21**	ND <1.6	-	-	-	-
Isopropylbenzene (cumene)	500*	1000*	5*	NA	ND <0.0043	ND <0.0041	ND <62	ND <0.0050	0.29	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	3.3	ND <1.6	-	-	-	-
m,p-Xylene[1]	NE	NE	NE	NA	ND <0.0043	ND <0.0041	840	ND <0.0050	0.99	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	26	ND <1.6	-	-	-	-
Methylene chloride	82	760	1	NA	ND <0.0085	ND <0.0082	ND <62	ND <0.01	ND <0.0087	ND <0.0085	ND <0.0088	ND <0.011	ND <0.012	ND <6.1	ND <1.6	-	-	-	-
n-Propylbenzene	500*	1000*	10*	NA	ND <0.0043	ND <0.0041	40	ND <0.0050	0.1	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
o-Xylene[1]	NE	NE	NE	NA	ND <0.0043	ND <0.0041	320	ND <0.0050	0.52	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	12	ND <1.6	-	-	-	-
Styrene	500	1,000	20	NA	ND <0.0043	ND <0.0041	750	ND <0.0050	ND <0.0044	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
Toluene	500	1,000	67	NA	ND <0.0043	ND <0.0041	800	ND <0.0050	0.036	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	ND <6.1	ND <1.6	-	-	-	-
Total Xylenes	500	1,000	19.5	NA	ND <0.0043	ND <0.0041	1,160	ND <0.0050	1.51	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	**38**	ND <1.6	-	-	-	-
Naphthalene	1,000	2,500	56	NA	ND <0.0043	ND <0.0041	8,000	ND <0.0050	18	ND <0.0042	ND <0.0044	ND <0.0056	ND <0.0060	**210**	6.1	-	-	-	-
SPLP VOCs (ug/L)																			
1,2,4-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-
1,3,5-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-
2-Isopropyltoluene	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
4-Isopropyltoluene (cymene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Benzene	NA	NA	NA	10	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Butylbenzene, n-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Butylbenzene, sec-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Ethylbenzene	NA	NA	NA	7,000	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-
Isopropylbenzene (cumene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-
m,p-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	360	-	-	-	-	-
n-Propylbenzene	NA	NA	NA	500*	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
o-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-
Styrene	NA	NA	NA	1,000	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Toluene	NA	NA	NA	10,000	-	-	-	-	-	-	-	-	-	ND <20	-	-	-	-	-
Total Xylenes	NA	NA	NA	5,300	-	-	-	-	-	-	-	-	-	560	-	-	-	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	2,500	-	-	-	-	-
PCBs (mg/Kg)																			
Aroclor-1268	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	ND <0.53	ND <0.56	1.72	ND <0.54	ND <0.57	ND <0.47	ND <0.53	ND <0.56	ND <0.60	ND <0.47	ND <0.52	-	-	-	-
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
CT DEEP RSRs - Connecticut Department of Energy & Environmental Protection Remediation Standard Regulations
RES DEC - Residential Direct Exposure Criteria
I/C DEC - Industrial/Commercial Direct Exposure Criteria
GB PMC - Pollutant Mobility Criteria for groundwater class GB
10XGWPC - Ten Times the Groundwater Protection Criteria
mg/Kg - milligrams per kilogram
mg/L - milligrams per liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
PCB - Polychlorinated Biphenyl
SPLP - Synthetic Precipitation Leaching Procedure
ND - Not detected above laboratory limits
NE - CTDEEP RSR Criteria not established
NA - Not Applicable
* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.
** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.
[1] - Xylene criteria apply to Total Xylenes only
^ - DEC does not apply to samples collected at depths greater than 15'
~ - PMC does not apply to sammples collected below the seasonal high watertable
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
Bolded and boxed - Concentration exceeds RSR Criteria
Bolded Only - Concentration exceeds APS Criteria
- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)					SB-13 (14-15')	DUP 2	SB-13 (25.5-27.5')	SB-14 (18-19')	SB-14 (23-24')	SB-15 (24-25')	SB-16 (22-24')	SB-16 (30-32')	SB-17 (24-26')	SB-18 (19-20')	SB-19 (12-14')	SB-20 (0-6")	SB-21 (0.5-2.5')	SB-22 (0-6")	SB-23 (2-4')
Laboratory ID		CT DEEP RSRs			BZ13432	BZ13434	BZ13433	BZ05324	BZ05325	BZ07948	BZ05326	BZ05327	BZ12384	BZ18023	BZ19753	BZ12383	BY98841	BZ17500	BY98842
Sample Date					10/2/2017	10/2/2017	10/2/2017	9/20/2017	9/20/2017	9/22/2017	9/20/2017	9/20/2017	9/29/2017	10/9/2017	10/11/2017	9/29/2017	9/11/2017	10/3/2017	9/11/2017
Duplicate					DUP 2	SB-13 (14-15)	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
Semi-VOCs (mg/Kg)																			
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.24	ND <0.26	1,500	ND <0.25	12	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**50**	ND <2.6	ND <0.14	ND <0.25	ND <0.14	ND <0.26
Acenaphthene	1000*	2500*	84*	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	15	ND <0.24	ND <0.24	ND <0.26	ND <0.27	29	4.0	ND <0.14	ND <0.25	ND <0.14	ND <0.26
Acenaphthylene	1,000	2,500	84	NA	ND <0.24	ND <0.26	1,000	ND <0.25	ND <5.3	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <4.8	ND <2.6	ND <0.14	0.47	ND <0.14	ND <0.26
Anthracene	1,000	2,500	400	NA	ND <0.24	ND <0.26	470	ND <0.25	8.8	ND <0.24	ND <0.24	ND <0.26	ND <0.27	15	ND <2.6	ND <0.14	0.44	ND <0.14	ND <0.26
Benz(a)anthracene	1	7.8	1	NA	ND <0.24	ND <0.26	280	ND <0.25	ND <5.3	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**8.9**	ND <2.6	ND <0.14	**1.2**	ND <0.14	ND <0.26
Benzo(a)pyrene	1	1	1	NA	ND <0.24	ND <0.26	220	ND <0.25	ND <5.3	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**8.3**	**4.0**	ND <0.14	**1.1**	ND <0.14	ND <0.26
Benzo(b)fluoranthene	1	7.8	1	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	ND <2.6	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <4.8	ND <2.6	ND <0.14	**1.1**	ND <0.14	ND <0.26
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	ND <5.3	ND <0.24	ND <0.24	0.27	ND <0.27	ND <4.8	**3.4**	ND <0.14	0.87	ND <0.14	ND <0.26
Benzo(k)fluoranthene	8.4	78	1	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	ND <5.3	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <4.8	ND <2.6	ND <0.14	1.0	ND <0.14	ND <0.26
Carbazole	31*	290*	1*	NA	ND <0.35	ND <0.37	ND <85	ND <0.36	ND <3	ND <0.34	ND <0.35	ND <0.36	ND <0.39	ND <2.8	ND <1.5	-	-	-	-
Chrysene	84*	780*	1*	NA	ND <0.24	ND <0.26	250	ND <0.25	ND <5.3	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**8.3**	ND <2.6	ND <0.14	**1.3**	0.14	ND <0.26
Dibenz(a,h)anthracene	1*	1*	1*	NA	ND <0.24	ND <0.26	ND <69	ND <0.25	ND <2.4	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <2.2	ND <1.2	ND <0.14	ND <0.25	ND <0.14	ND <0.26
Dibenzofuran	68*	1000*	1.4*	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	ND <2.2	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <2	ND <1.1	-	-	-	-
Fluoranthene	1,000	2,500	56	NA	ND <0.24	ND <0.26	600	ND <0.25	9.2	ND <0.24	ND <0.24	ND <0.26	ND <0.27	18	3.2	ND <0.14	2.3	0.24	ND <0.26
Fluorene	1,000	2,500	56	NA	ND <0.24	ND <0.26	590	ND <0.25	11	ND <0.24	ND <0.24	ND <0.26	ND <0.27	16	3.3	ND <0.14	ND <0.25	ND <0.14	ND <0.26
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	ND <0.24	ND <0.26	ND <150	ND <0.25	ND <2.5	ND <0.24	ND <0.24	ND <0.26	ND <0.27	ND <4.8	**3.2**	ND <0.14	0.95	ND <0.14	ND <0.26
Naphthalene	1,000	2,500	56	NA	ND <0.24	ND <0.26	5,200	ND <0.25	22	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**150**	ND <2.6	ND <0.14	ND <0.25	ND <0.14	ND <0.26
Pentachlorophenol	5.1	48	1	NA	ND <0.35	ND <0.37	ND <80	ND <0.36	ND <2.8	ND <0.34	ND <0.35	ND <0.36	ND <0.39	ND <2.6	ND <1.4	-	-	-	-
Phenanthrene	1,000	2,500	40	NA	ND <0.24	ND <0.26	1,600	ND <0.25	31	ND <0.24	ND <0.24	ND <0.26	ND <0.27	**53**	7.2	ND <0.14	1.7	0.18	ND <0.26
Pyrene	1,000	2,500	40	NA	ND <0.24	ND <0.26	830	ND <0.25	14	ND <0.24	ND <0.24	ND <0.26	ND <0.27	26	6.2	ND <0.14	2.2	0.25	ND <0.26
SPLP Semi-VOCs (ug/L)																			
2-Methylnaphthalene	NA	NA	NA	280*	-	-	-	-	ND <0.10	-	-	-	-	100	0.35	ND <0.10	ND <0.09	-	-
Acenaphthene	NA	NA	NA	4,200*	-	-	-	-	14	-	-	-	-	53	4.9	ND <0.10	ND <0.09	-	-
Acenaphthylene	NA	NA	NA	4,200	-	-	-	-	2.1	-	-	-	-	ND <1.9	0.73	ND <0.10	ND <0.09	-	-
Anthracene	NA	NA	NA	20,000	-	-	-	-	1.7	-	-	-	-	ND <1.9	0.85	ND <0.10	ND <0.09	-	-
Benz(a)anthracene	NA	NA	NA	0.6	-	-	-	-	0.25	-	-	-	-	ND <0.38	0.29	ND <0.02	ND <0.02	-	-
Benzo(a)pyrene	NA	NA	NA	2	-	-	-	-	0.03	-	-	-	-	ND <0.38	0.24	ND <0.02	ND <0.02	-	-
Benzo(b)fluoranthene	NA	NA	NA	0.8	-	-	-	-	0.06	-	-	-	-	ND <0.38	0.17	ND <0.02	ND <0.02	-	-
Benzo(g,h,i)perylene	NA	NA	NA	4.8*	-	-	-	-	ND <0.10	-	-	-	-	ND <1.9	0.34	ND <0.10	ND <0.09	-	-
Benzo(k)fluoranthene	NA	NA	NA	5	-	-	-	-	0.06	-	-	-	-	ND <0.38	0.17	ND <0.02	ND <0.02	-	-
Chrysene	NA	NA	NA	48*	-	-	-	-	0.27	-	-	-	-	ND <0.38	0.32	ND <0.02	ND <0.02	-	-
Dibenz(a,h)anthracene	NA	NA	NA	1*	-	-	-	-	ND <0.01	-	-	-	-	ND <0.19	0.05	ND <0.01	ND <0.01	-	-
Fluoranthene	NA	NA	NA	2,800	-	-	-	-	1.6	-	-	-	-	ND <1.9	0.91	ND <0.10	ND <0.09	-	-
Fluorene	NA	NA	NA	2,800	-	-	-	-	6	-	-	-	-	22	2.8	ND <0.10	ND <0.09	-	-
Indeno(1,2,3-cd)pyrene	NA	NA	NA	1*	-	-	-	-	ND <0.02	-	-	-	-	ND <0.38	0.19	ND <0.02	ND <0.02	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	0.25	-	-	-	-	860	1.9	ND <0.10	ND <0.09	-	-
Phenanthrene	NA	NA	NA	2,000	-	-	-	-	10	-	-	-	-	34	3.9	ND <0.07	ND <0.07	-	-
Pyrene	NA	NA	NA	2,000	-	-	-	-	1.8	-	-	-	-	ND <1.9	1.3	ND <0.10	ND <0.09	-	-
Metals (mg/Kg)																			
Antimony	27	8,200	NA	NA	ND <3.2	ND <3.6	ND <3.3	ND <3.6	ND <3.6	ND <3.5	ND <3.3	ND <3.7	ND <3.7	ND <3.3	ND <3.6	-	-	-	-
Arsenic	10	10	NA	NA	ND <0.65	ND <0.71	ND <0.66	0.89	2.87	0.9	1.46	1.38	1.56	ND <0.66	1.31	-	-	-	-
Barium	4,700	140,000	NA	NA	19.5	15.3	29.5	28.5	49.3	31	63.7	22	51	18.8	40.8	-	-	-	-
Beryllium	2	2	NA	NA	ND <0.26	ND <0.28	ND <0.26	0.3	0.45	ND <0.28	0.43	ND <0.29	0.41	ND <0.26	0.45	-	-	-	-
Cadmium	34	1,000	NA	NA	ND <0.32	ND <0.36	ND <0.33	ND <0.36	0.37	ND <0.35	ND <0.33	ND <0.37	ND <0.37	ND <0.33	ND <0.36	-	-	-	-
Chromium			NA	NA	11.2	5.93	10.2	9.37	21.4	10.2	21	7.11	18.3	5.44	9.58	-	-	-	-
Copper	2,500	76,000	NA	NA	6.05	4.18	6.01	14	16.4	9.67	17	3.68	22.2	6.16	12	-	-	-	-
Lead	400	1,000	NA	NA	2.04	2.34	0.64	3.93	5.03	2.23	5.7	2.08	3.36	2.07	4.28	-	-	-	-
Mercury	20	610	NA	NA	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 <0.03	ND <0.03	-	-	-	-
Nickel	1,400	7,500	NA	NA	3.81	2.4	6.5	5.73	14.9	7.05	14.4	4.39	12.6	3.47	7.73	-	-	-	-
Silver	340	10,000	NA	NA	ND <0.32	ND <0.36	ND <0.33	ND <0.36	ND <0.36	ND <0.35	ND <0.33	ND <0.37	ND <0.37	ND <0.33	ND <0.36	-	-	-	-
Vanadium	470	14,000	NA	NA	10.7	11.7	16.1	21.9	33.4	19.8	33.6	12.3	28.4	10.5	22.4	-	-	-	-
Zinc	20,000	610,000	NA	NA	17.8	8.87	14.8	15.7	35.6	17.3	36.4	11.6	34.8	8.81	15	-	-	-	-
SPLP Metals (mg/L)																			
Antimony	NA	NA	0.06	NA	ND <0.005	ND <0.005	-	ND <0.005	-	-	-	-	-	ND <0.005	ND <0.005	-	-	-	-
Arsenic	NA	NA	0.5	NA	ND <0.004	ND <0.004	-	ND <0.004	-	-	-	-	-	ND <0.004	ND <0.004	-	-	-	-
Barium	NA	NA	10	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	0.024	-	-	-	-
Beryllium	NA	NA	0.04	NA	ND <0.001	ND <0.001	-	ND <0.001	-	-	-	-	-	ND <0.001	ND <0.001	-	-	-	-
Cadmium	NA	NA	0.05	NA	ND <0.005	ND <0.005	-	ND <0.005	-	-	-	-	-	ND <0.005	ND <0.005	-	-	-	-
Chromium	NA	NA	0.5	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Copper	NA	NA	13	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Lead	NA	NA	0.15	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Mercury	NA	NA	0.02	NA	ND <0.0005	ND <0.0005	-	ND <0.0005	-	-	-	-	-	ND <0.0005	ND <0.0005	-	-	-	-
Nickel	NA	NA	1	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Silver	NA	NA	0.36	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Vanadium	NA	NA	0.5	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-
Zinc	NA	NA	50	NA	ND <0.010	ND <0.010	-	ND <0.010	-	-	-	-	-	ND <0.010	ND <0.010	-	-	-	-

Notes:

CT DEEP RSRs - Connecticut Department of Energy & Environmental Protection Remediation Standard Regulations

RES DEC - Residential Direct Exposure Criteria

I/C DEC - Industrial/Commercial Direct Exposure Criteria

GB PMC - Pollutant Mobility Criteria for groundwater class GB

10XGWPC - Ten Times the Groundwater Protection Criteria

mg/Kg - milligrams per kilogram

mg/L - milligrams per liter

CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons

VOCs - Volatile Organic Compounds

SVOCs - Semi Volatile Organic Compounds

PCB - Polychlorinated Biphenyl

SPLP - Synthetic Precipitation Leaching Procedure

ND - Not detected above laboratory limits

NE - CTDEEP RSR Criteria not established

NA - Not Applicable

* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.

** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.

[1] - Xylene criteria apply to Total Xylenes only

^ - DEC does not apply to samples collected at depths greater than 15'

~ - PMC does not apply to sammples collected below the seasonal high watertable

Only compounds detected are summarized in the table (compounds that are not listed were not detected)

Bolded and boxed - Concentration exceeds RSR Criteria

Bolded Only - Concentration exceeds APS Criteria

- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)					SB-24 (2-4')	SB-25 (0.5-0.75')	SB-26 (6-7")	SB-27 (3-4")	SS-100 (0-6")	SS-101 (0-6")	SS-102 (0-6")	SS-103 (0-6")	SS-104 (0-6")	SS-105 (0-6")	SS-106 (0-6")	SS-107 (0-6")
Laboratory ID					BY98233	BZ40748	BZ17502	BZ17501	BZ39898	BZ39899	BZ39900	BZ39901	BZ39902	BZ39903	BZ39904	BZ04863
Sample Date					9/8/2017	11/13/2017	10/6/2017	10/6/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	9/19/2017
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-
	CT DEEP RSRs															
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC												
CT ETPH (mg/Kg)	500	2,500	2,500	NA					59	74	**3,700**	**3,100**	**4,600**	350	**1,200**	**1,800**
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
2-Isopropyltoluene	NE	NE	NE	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
Benzene	21	200	0.2	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Butylbenzene, n-	500*	1000*	70*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
Butylbenzene, sec-	500*	1000*	70*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
Ethylbenzene	500	1,000	10.1	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Isopropylbenzene (cumene)	500*	1000*	5*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
m,p-Xylene[1]	NE	NE	NE	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Methylene chloride	82	760	1	NA	-	-	-	-	ND <0.01	0.019	ND <0.0088	ND <0.017	ND <0.011	ND <0.01	ND <0.015	ND <0.0091
n-Propylbenzene	500*	1000*	10*	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.33	ND <0.0045
o-Xylene[1]	NE	NE	NE	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Styrene	500	1,000	20	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Toluene	500	1,000	67	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Total Xylenes	500	1,000	19.5	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	ND <0.0076	ND <0.0045
Naphthalene	1,000	2,500	56	NA	-	-	-	-	ND <0.0051	ND <0.0088	ND <0.0044	ND <0.0085	ND <0.0055	ND <0.0050	0.17	ND <0.0045
SPLP VOCs (ug/L)																
1,2,4-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-
2-Isopropyltoluene	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-
4-Isopropyltoluene (cymene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	NA	NA	NA	10	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, sec-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	NA	NA	NA	7,000	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene (cumene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	NA	NA	NA	500*	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	NA	NA	NA	1,000	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	NA	NA	NA	10,000	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	NA	NA	NA	5,300	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-
PCBs (mg/Kg)																
Aroclor-1268	1	10	NA	NA	-	-	-	-	ND <0.38	ND <0.37	0.38	ND <0.37	ND <0.39	ND <0.37	ND <0.38	ND <0.34
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	0.38	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	-	-	-	-	ND <0.52	0.72	ND <0.53	4.03	35.8	0.7	10.7	3.86
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	0.01	-	-	ND <0.01

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mg/Kg - milligrams per kilogram
mg/L - milligrams per liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
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SVOCs - Semi Volatile Organic Compounds
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~ - PMC does not apply to sammples collected below the seasonal high watertable
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
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- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)	CT DEEP RSRs				SB-24 (2-4')	SB-25 (0.5-0.75')	SB-26 (6-7")	SB-27 (3-4")	SS-100 (0-6")	SS-101 (0-6")	SS-102 (0-6")	SS-103 (0-6")	SS-104 (0-6")	SS-105 (0-6")	SS-106 (0-6")	SS-107 (0-6")
Laboratory ID					BY98233	BZ40748	BZ17502	BZ17501	BZ39898	BZ39899	BZ39900	BZ39901	BZ39902	BZ39903	BZ39904	BZ04863
Sample Date					9/8/2017	11/13/2017	10/6/2017	10/6/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	11/10/2017	9/19/2017
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC												
Semi-VOCs (mg/Kg)																
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.38	ND <2.7	ND <0.15	ND <0.14	ND <0.26	ND <0.26	ND <2.4	ND <2.6	3.2	ND <0.26	ND <2.7	1.4
Acenaphthene	1000*	2500*	84*	NA	ND <0.38	ND <2.7	ND <0.15	ND <0.14	ND <0.26	ND <0.26	ND <2.4	ND <2.6	ND <2.7	ND <0.26	ND <2.7	ND <1.2
Acenaphthylene	1,000	2,500	84	NA	ND <0.38	ND <2.7	ND <0.15	ND <0.14	0.63	0.62	9.6	11	16	2.9	5.8	11
Anthracene	1,000	2,500	400	NA	ND <0.38	2.8	ND <0.15	ND <0.14	0.27	ND <0.26	7.2	3.6	5.6	0.82	ND <2.7	6
Benz(a)anthracene	1	7.8	1	NA	0.59	**5.8**	ND <0.15	ND <0.14	**1.1**	0.73	**40**	**11**	**9.5**	**1.3**	**3.4**	**17**
Benzo(a)pyrene	1	1	1	NA	0.54	**5.0**	ND <0.15	ND <0.14	**1.3**	1.0	**45**	**18**	**12**	**2.2**	**6.2**	**20**
Benzo(b)fluoranthene	1	7.8	1	NA	**1.1**	**4.6**	ND <0.15	ND <0.14	**1.2**	0.86	**35**	**12**	**18**	**1.9**	**5.9**	**19**
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	0.98	**2.8**	ND <0.15	ND <0.14	**1.2**	0.9	**24**	**17**	**23**	**3.3**	**11**	**17**
Benzo(k)fluoranthene	8.4	78	1	NA	0.89	**4.5**	ND <0.15	ND <0.14	**1.3**	0.96	**37**	**12**	**20**	**2.0**	**5.8**	**16**
Carbazole	31*	290*	1*	NA	-	-	-	-	ND <0.37	ND <0.37	ND <3.5	ND <1.5	ND <1.6	ND <0.37	ND <1.5	ND <1.7
Chrysene	84*	780*	1*	NA	**1.1**	**6.1**	ND <0.15	ND <0.14	**1.3**	0.97	**44**	**12**	**16**	**1.6**	**4.8**	**20**
Dibenz(a,h)anthracene	1*	1*	1*	NA	ND <0.38	ND <1.3	ND <0.15	ND <0.14	ND <0.26	ND <0.26	**3.9**	**4.3**	**5.5**	0.61	ND <2.7	**4**
Dibenzofuran	68*	1000*	1.4*	NA	-	-	-	-	ND <0.26	ND <0.26	ND <2.4	ND <1.1	ND <1.1	ND <0.26	ND <1.1	ND <1.2
Fluoranthene	1,000	2,500	56	NA	0.82	16	ND <0.15	ND <0.14	1.6	0.96	**60**	11	8.2	1.5	3.9	27
Fluorene	1,000	2,500	56	NA	ND <0.38	ND <2.7	ND <0.15	ND <0.14	ND <0.26	ND <0.26	ND <2.4	ND <2.6	ND <2.7	ND <0.26	ND <2.7	ND <1.2
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	0.85	**2.9**	ND <0.15	ND <0.14	**1.2**	0.87	**25**	**16**	**23**	**2.6**	**9.7**	**15**
Naphthalene	1,000	2,500	56	NA	ND <0.38	ND <2.7	ND <0.15	ND <0.14	ND <0.26	ND <0.26	ND <2.4	3.7	3.6	0.26	ND <2.7	1.6
Pentachlorophenol	5.1	48	1	NA	-	-	-	-	ND <0.37	ND <0.37	ND <1.3	ND <1.4	ND <1.5	ND <0.37	ND <1.4	ND <1
Phenanthrene	1,000	2,500	40	NA	0.63	14	0.17	ND <0.14	0.71	0.4	18	3.3	3.5	0.33	ND <2.7	20
Pyrene	1,000	2,500	40	NA	1.2	13	ND <0.15	ND <0.14	1.9	1.3	**74**	16	14	2.3	5.8	36
SPLP Semi-VOCs (ug/L)																
2-Methylnaphthalene	NA	NA	NA	280*	ND <0.09	ND <0.10	-	-	-	-	ND <0.09	-	-	-	ND <0.09	0.28
Acenaphthene	NA	NA	NA	4,200*	ND <0.09	ND <0.10	-	-	-	-	0.28	-	-	-	ND <0.09	0.11
Acenaphthylene	NA	NA	NA	4,200	ND <0.09	ND <0.10	-	-	-	-	0.73	-	-	-	0.43	ND <0.09
Anthracene	NA	NA	NA	20,000	ND <0.09	ND <0.10	-	-	-	-	0.38	-	-	-	0.11	0.37
Benz(a)anthracene	NA	NA	NA	0.6	ND <0.02	0.03	-	-	-	-	**1.5**	-	-	-	0.2	0.13
Benzo(a)pyrene	NA	NA	NA	2	ND <0.02	ND <0.02	-	-	-	-	1.5	-	-	-	0.29	ND <0.02
Benzo(b)fluoranthene	NA	NA	NA	0.8	ND <0.02	ND <0.02	-	-	-	-	**1.4**	-	-	-	0.36	0.14
Benzo(g,h,i)perylene	NA	NA	NA	4.8*	ND <0.09	ND <0.10	-	-	-	-	0.91	-	-	-	0.45	ND <0.09
Benzo(k)fluoranthene	NA	NA	NA	5	ND <0.02	ND <0.02	-	-	-	-	1.2	-	-	-	0.32	0.08
Chrysene	NA	NA	NA	48*	ND <0.02	0.02	-	-	-	-	1.6	-	-	-	0.27	0.25
Dibenz(a,h)anthracene	NA	NA	NA	1*	ND <0.01	ND <0.02	-	-	-	-	0.33	-	-	-	0.09	0.03
Fluoranthene	NA	NA	NA	2,800	ND <0.09	0.14	-	-	-	-	5.5	-	-	-	0.26	1.3
Fluorene	NA	NA	NA	2,800	ND <0.09	ND <0.10	-	-	-	-	ND <0.09	-	-	-	ND <0.09	0.76
Indeno(1,2,3-cd)pyrene	NA	NA	NA	1*	ND <0.02	ND <0.02	-	-	-	-	0.81	-	-	-	0.34	0.02
Naphthalene	NA	NA	NA	2,800	ND <0.09	ND <0.10	-	-	-	-	ND <0.09	-	-	-	ND <0.09	0.32
Phenanthrene	NA	NA	NA	2,000	ND <0.07	0.22	-	-	-	-	0.19	-	-	-	0.1	4
Pyrene	NA	NA	NA	2,000	ND <0.09	0.11	-	-	-	-	4.4	-	-	-	0.4	0.17
Metals (mg/Kg)																
Antimony	27	8,200	NA	NA	-	-	-	-	ND <3.5	ND <3.9	ND <3.2	ND <3.9	ND <4.1	ND <3.9	ND <4.0	ND <3.5
Arsenic	10	10	NA	NA	-	-	3.05	5.6	**14.9**	**12.5**	4.28	**17.5**	**17.5**	9.93	**226**	7.4
Barium	4,700	140,000	NA	NA	-	-	-	-	64.2	47.5	68	48.9	38.1	42.1	68.7	54
Beryllium	2	2	NA	NA	-	-	-	-	0.46	0.42	0.28	0.44	0.34	0.37	0.49	0.37
Cadmium	34	1,000	NA	NA	-	-	-	-	1.01	1.21	1.03	1.62	0.85	0.58	8.72	0.39
Chromium			NA	NA	-	-	-	-	17.3	15.1	10.2	15.3	20.5	14.1	15.7	13.7
Copper	2,500	76,000	NA	NA	-	-	-	-	76	92.1	34.9	67.6	167	51.6	151	24
Lead	400	1,000	NA	NA	-	-	-	-	61.4	99	**568**	154	171	55.4	166	74.6
Mercury	20	610	NA	NA	-	-	-	-	0.25	0.08	0.07	0.21	0.27	0.09	0.35	0.11
Nickel	1,400	7,500	NA	NA	-	-	-	-	13.1	11	12.3	12.7	10	9.38	11.9	8.7
Silver	340	10,000	NA	NA	-	-	-	-	ND <0.35	ND <0.39	ND <0.32	ND <0.39	0.81	ND <0.39	ND <0.40	ND <0.35
Vanadium	470	14,000	NA	NA	-	-	-	-	41.3	44.1	51.9	37.9	37.3	25.2	34.7	27.1
Zinc	20,000	610,000	NA	NA	-	-	-	-	118	156	111	124	96.5	108	975	71.7
SPLP Metals (mg/L)																
Antimony	NA	NA	0.06	NA	-	-	-	-	-	-	0.008	-	-	-	ND <0.005	ND <0.005
Arsenic	NA	NA	0.5	NA	-	-	-	-	-	-	ND <0.004	-	-	-	0.089	ND <0.004
Barium	NA	NA	10	NA	-	-	-	-	-	-	ND <0.010	-	-	-	0.011	ND <0.010
Beryllium	NA	NA	0.04	NA	-	-	-	-	-	-	ND <0.001	-	-	-	ND <0.001	ND <0.001
Cadmium	NA	NA	0.05	NA	-	-	-	-	-	-	ND <0.005	-	-	-	ND <0.005	ND <0.005
Chromium	NA	NA	0.5	NA	-	-	-	-	-	-	ND <0.010	-	-	-	ND <0.010	ND <0.010
Copper	NA	NA	13	NA	-	-	-	-	-	-	ND <0.010	-	-	-	0.013	ND <0.010
Lead	NA	NA	0.15	NA	-	-	-	-	-	-	**0.277**	-	-	-	0.029	ND <0.010
Mercury	NA	NA	0.02	NA	-	-	-	-	-	-	ND <0.0005	-	-	-	ND <0.0005	ND <0.0005
Nickel	NA	NA	1	NA	-	-	-	-	-	-	ND <0.010	-	-	-	ND <0.010	ND <0.010
Silver	NA	NA	0.36	NA	-	-	-	-	-	-	ND <0.010	-	-	-	ND <0.010	ND <0.010
Vanadium	NA	NA	0.5	NA	-	-	-	-	-	-	ND <0.010	-	-	-	ND <0.010	ND <0.010
Zinc	NA	NA	50	NA	-	-	-	-	-	-	ND <0.010	-	-	-	0.127	0.015

Notes:

CT DEEP RSRs - Connecticut Department of Energy & Environmental Protection Remediation Standard Regulations

RES DEC - Residential Direct Exposure Criteria

I/C DEC - Industrial/Commercial Direct Exposure Criteria

GB PMC - Pollutant Mobility Criteria for groundwater class GB

10XGWPC - Ten Times the Groundwater Protection Criteria

mg/Kg - milligrams per kilogram

mg/L - milligrams per liter

CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons

VOCs - Volatile Organic Compounds

SVOCs - Semi Volatile Organic Compounds

PCB - Polychlorinated Biphenyl

SPLP - Synthetic Precipitation Leaching Procedure

ND - Not detected above laboratory limits

NE - CTDEEP RSR Criteria not established

NA - Not Applicable

* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.

** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.

[1] - Xylene criteria apply to Total Xylenes only

^ - DEC does not apply to samples collected at depths greater than 15'

~ - PMC does not apply to sammples collected below the seasonal high watertable

Only compounds detected are summarized in the table (compounds that are not listed were not detected)

Bolded and boxed - Concentration exceeds RSR Criteria

Bolded Only - Concentration exceeds APS Criteria

- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)					SS-108 (0-6")	SS-DUP-1	TP-01 (5-7')	TP-02 (7-9')	TP-03 (2-3')	TP-04 (6.5-7')	TP-05 (5.75-6')	TP-06 (9-10')	TP-07 (7-8')	MW-2BR (11-13')	MW-16S (8-10')	MW-17S (8-10')	MW-19S (14-15')	MW-20S (25-26')	MW-20S (35-37')
Laboratory ID					BZ04864	BZ04866	BZ18024	BZ18025	BZ18026	BZ09611	BZ09610	BZ09609	BZ09608	BZ28213	BZ28624	BZ28211	BZ06775	BZ07946	BZ07947
Sample Date					9/19/2017	9/19/2017	10/9/2017	10/9/2017	10/9/2017	9/26/2017	9/26/2017	9/26/2017	9/26/2017	10/26/2017	10/27/2017	10/25/2017	9/21/2017	9/22/2017	9/22/2017
Duplicate					SS-DUP-1	SS-108 (0-6")	-	-	-	-	-	-	-	-	-	-	-	-	-
	CT DEEP RSRs																		
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
CT ETPH (mg/Kg)	500	2,500	2,500	NA	ND <300	370	ND <280	ND <290	**2,000**	**850**	**16,000**	ND <53	ND <52	**1,900**	ND <58	ND <64	ND <54	ND <51	21,000
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																			
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	**74**	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	50
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <95	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	15
2-Isopropyltoluene	NE	NE	NE	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <9.5	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <2.9
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <95	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	3.3
Benzene	21	200	0.2	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <9.5	ND <0.0055	ND <0.0056	ND <0.2	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <0.29
Butylbenzene, n-	500*	1000*	70*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <70	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	3.8
Butylbenzene, sec-	500*	1000*	70*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <70	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <2.9
Ethylbenzene	500	1,000	10.1	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <95	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <2.9
Isopropylbenzene (cumene)	500*	1000*	5*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <9.5	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	7.7
m,p-Xylene[1]	NE	NE	NE	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	57	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	4.4
Methylene chloride	82	760	1	NA	ND <0.011	ND <0.014	ND <0.014	ND <0.019	ND <0.012	ND <0.011	ND <95	ND <0.011	ND <0.011	ND <0.58	ND <0.012	ND <0.013	ND <0.01	ND <0.01	ND <2.9
n-Propylbenzene	500*	1000*	10*	NA	ND <0.0057	ND <0.31	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <19	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	3.3
o-Xylene[1]	NE	NE	NE	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	40	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	6.5
Styrene	500	1,000	20	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <20	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <2.9
Toluene	500	1,000	67	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	ND <95	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	ND <2.9
Total Xylenes	500	1,000	19.5	NA	ND <0.0057	ND <0.0068	ND <0.0072	ND <0.0095	ND <0.0061	ND <0.0055	**97**	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	10.9
Naphthalene	1,000	2,500	56	NA	ND <0.0057	ND <0.31	ND <0.0072	0.025	ND <0.0061	ND <0.0055	**2,800**	ND <0.0055	ND <0.0056	ND <0.29	ND <0.0058	ND <0.0067	ND <0.0051	ND <0.0052	670
SPLP VOCs (ug/L)																			
1,2,4-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	NA	NA	NA	1,400*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Isopropyltoluene	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Isopropyltoluene (cymene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	NA	NA	NA	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, sec-	NA	NA	NA	3,500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	NA	NA	NA	7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene (cumene)	NA	NA	NA	250*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	NA	NA	NA	500*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene[1]	NA	NA	NA	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	NA	NA	NA	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	NA	NA	NA	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	NA	NA	NA	5,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	NA	NA	NA	2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs (mg/Kg)																			
Aroclor-1268	1	10	NA	NA	ND <0.41	ND <0.38	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	0.95	ND <0.57	1.26	1.05	66.9	4.22	10.7	ND <0.49	0.54	ND <0.57	ND <0.59	ND <0.65	ND <0.49	ND <0.47	-
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	ND <0.01	ND <0.01	0.1	0.01	ND <0.01	-	-	-	-	-	-	-	-

Notes:
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10XGWPC - Ten Times the Groundwater Protection Criteria
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mg/L - milligrams per liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
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SPLP - Synthetic Precipitation Leaching Procedure
ND - Not detected above laboratory limits
NE - CTDEEP RSR Criteria not established
NA - Not Applicable
* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.
** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.
[1] - Xylene criteria apply to Total Xylenes only
^ - DEC does not apply to samples collected at depths greater than 15'
~ - PMC does not apply to sammples collected below the seasonal high watertable
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
Bolded and boxed - Concentration exceeds RSR Criteria
Bolded Only - Concentration exceeds APS Criteria
- Sample not analyzed

Table 2
Soil Analytical Data Exceedance Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID (Depth)	CT DEEP RSRs				SS-108 (0-6")	SS-DUP-1	TP-01 (5-7')	TP-02 (7-9')	TP-03 (2-3')	TP-04 (6.5-7')	TP-05 (5.75-6')	TP-06 (9-10')	TP-07 (7-8')	MW-2BR (11-13')	MW-16S (8-10')	MW-17S (8-10')	MW-19S (14-15')	MW-20S (25-26')	MW-20S (35-37')
Laboratory ID					BZ04864	BZ04866	BZ18024	BZ18025	BZ18026	BZ09611	BZ09610	BZ09609	BZ09608	BZ28213	BZ28624	BZ28211	BZ06775	BZ07946	BZ07947
Sample Date					9/19/2017	9/19/2017	10/9/2017	10/9/2017	10/9/2017	9/26/2017	9/26/2017	9/26/2017	9/26/2017	10/26/2017	10/27/2017	10/25/2017	9/21/2017	9/22/2017	9/22/2017
Duplicate					SS-DUP-1	SS-108 (0-6")	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC															
Semi-VOCs (mg/Kg)																			
2-Methylnaphthalene	270*	1000*	5.6*	NA	0.29	0.35	ND <0.26	ND <0.27	ND <4.9	0.28	**380**	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	740
Acenaphthene	1000*	2500*	84*	NA	ND <0.29	ND <0.26	ND <0.26	ND <0.27	ND <4.9	0.25	**370**	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	370
Acenaphthylene	1,000	2,500	84	NA	1.7	1.7	0.97	0.42	ND <4.9	4.2	35	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Anthracene	1,000	2,500	400	NA	1.2	1.1	0.39	0.48	6.1	1.3	150	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	210
Benz(a)anthracene	1	7.8	1	NA	**4.8**	**3.6**	**1.4**	**1.1**	**33**	**1.8**	**85**	ND <0.24	ND <0.24	**7.8**	ND <0.27	ND <0.3	ND <0.25	ND <0.24	110
Benzo(a)pyrene	1	1	1	NA	**5**	**4**	**2.6**	**1.3**	**28**	**7.3**	**68**	ND <0.24	0.61	**6.2**	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Benzo(b)fluoranthene	1	7.8	1	NA	**5.2**	**4.4**	**2.4**	**1.1**	**24**	**4.7**	**33**	ND <0.24	0.35	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	**2.7**	**2.6**	**1.8**	**1.2**	**13**	**7.5**	**31**	ND <0.24	0.62	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Benzo(k)fluoranthene	8.4	78	1	NA	**4.9**	**3.1**	**1.8**	0.94	**26**	**3.9**	**40**	ND <0.24	0.42	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Carbazole	31*	290*	1*	NA	0.43	ND <0.38	ND <0.37	ND <0.38	ND <2.8	ND <0.36	ND <20	ND <0.35	ND <0.35	ND <3	ND <0.39	ND <0.42	ND <0.35	ND <0.34	-
Chrysene	84*	780*	1*	NA	**6.5**	**5.1**	**2**	**1.3**	**29**	**3**	**85**	ND <0.24	ND <0.24	**7.8**	ND <0.27	ND <0.3	ND <0.25	ND <0.24	120
Dibenz(a,h)anthracene	1*	1*	1*	NA	0.71	0.63	0.57	ND <0.27	ND <4.9	1	ND <14	ND <0.24	0.34	ND <2.4	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <49
Dibenzofuran	68*	1000*	1.4*	NA	ND <0.29	ND <0.26	ND <0.26	ND <0.27	ND <2	ND <0.25	**22**	ND <0.24	ND <0.24	ND <2.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	-
Fluoranthene	1,000	2,500	56	NA	8.6	6.8	2.1	2.2	55	1.5	**190**	ND <0.24	ND <0.24	8.8	ND <0.27	ND <0.3	ND <0.25	ND <0.24	240
Fluorene	1,000	2,500	56	NA	0.64	ND <0.26	ND <0.26	ND <0.27	ND <4.9	ND <0.25	**190**	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	310
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	**2.6**	**2.4**	**1.8**	**1.1**	**17**	**5.8**	**29**	ND <0.24	0.59	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	ND <110
Naphthalene	1,000	2,500	56	NA	0.37	0.4	0.41	ND <0.27	ND <4.9	0.51	**770**	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	910
Pentachlorophenol	5.1	48	1	NA	ND <0.41	ND <0.38	ND <0.37	ND <0.38	ND <2.7	ND <0.36	ND <7.5	ND <0.35	ND <0.35	ND <2.8	ND <0.39	ND <0.42	ND <0.35	ND <0.34	-
Phenanthrene	1,000	2,500	40	NA	7.7	6.5	0.92	1.7	17	0.87	**600**	ND <0.24	ND <0.24	ND <5.2	ND <0.27	ND <0.3	ND <0.25	ND <0.24	750
Pyrene	1,000	2,500	40	NA	9.5	7.6	2.6	2.1	**49**	3.6	**270**	ND <0.24	ND <0.24	19	ND <0.27	ND <0.3	ND <0.25	ND <0.24	360
SPLP Semi-VOCs (ug/L)																			
2-Methylnaphthalene	NA	NA	NA	280*	ND <0.10	ND <0.10	-	-	-	-	-	-	-	-	-	-	-	-	390
Acenaphthene	NA	NA	NA	4,200*	ND <0.10	ND <0.10	-	-	-	-	-	-	-	-	-	-	-	-	150
Acenaphthylene	NA	NA	NA	4,200	0.22	ND <0.10	-	-	-	-	-	-	-	-	-	-	-	-	ND <2.0
Anthracene	NA	NA	NA	20,000	0.12	ND <0.10	-	-	-	-	-	-	-	-	-	-	-	-	ND <2.0
Benz(a)anthracene	NA	NA	NA	0.6	0.37	0.05	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Benzo(a)pyrene	NA	NA	NA	2	0.37	0.03	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Benzo(b)fluoranthene	NA	NA	NA	0.8	0.32	0.04	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Benzo(g,h,i)perylene	NA	NA	NA	4.8*	0.2	ND <0.10	-	-	-	-	-	-	-	-	-	-	-	-	ND <2.0
Benzo(k)fluoranthene	NA	NA	NA	5	0.33	0.04	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Chrysene	NA	NA	NA	48*	0.55	0.07	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Dibenz(a,h)anthracene	NA	NA	NA	1*	0.03	ND <0.01	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.20
Fluoranthene	NA	NA	NA	2,800	1.3	0.27	-	-	-	-	-	-	-	-	-	-	-	-	ND <2.0
Fluorene	NA	NA	NA	2,800	0.19	0.13	-	-	-	-	-	-	-	-	-	-	-	-	73
Indeno(1,2,3-cd)pyrene	NA	NA	NA	1*	0.17	ND <0.02	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.40
Naphthalene	NA	NA	NA	2,800	0.24	0.12	-	-	-	-	-	-	-	-	-	-	-	-	1,500
Phenanthrene	NA	NA	NA	2,000	1.5	0.66	-	-	-	-	-	-	-	-	-	-	-	-	87
Pyrene	NA	NA	NA	2,000	1.4	0.23	-	-	-	-	-	-	-	-	-	-	-	-	ND <2.0
Metals (mg/Kg)																			
Antimony	27	8,200	NA	NA	ND <4.3	ND <3.8	ND <4.0	ND <3.4	ND <3.7	ND <3.2	ND <4.2	ND <3.2	ND <3.1	ND <3.7	ND <3.6	ND <3.8	ND <3.2	ND <3.3	-
Arsenic	10	10	NA	NA	3.6	4.05	3.84	2.83	6.31	2.57	6.94	1.03	1.54	3.74	1.31	ND <0.76	0.83	0.82	-
Barium	4,700	140,000	NA	NA	64.3	60.3	76.5	64.7	98.8	54.3	74.6	27.8	36.1	83.3	7.93	10.9	28.3	29.3	-
Beryllium	2	2	NA	NA	ND <0.35	0.35	0.51	0.37	0.58	0.4	0.56	0.33	0.33	0.32	ND <0.29	ND <0.31	ND <0.26	ND <0.26	-
Cadmium	34	1,000	NA	NA	ND <0.43	ND <0.38	2.63	0.59	0.46	ND <0.32	0.53	ND <0.32	ND <0.31	0.47	0.5	ND <0.38	ND <0.32	ND <0.33	-
Chromium			NA	NA	11.7	13.7	16.7	15.3	17.7	13.1	17.8	10.4	11	16.9	10.5	4.49	6.59	8.76	-
Copper	2,500	76,000	NA	NA	131	41.4	63.3	64.3	36	38.3	38.8	15.9	12.4	19.9	6.08	3.28	3.88	8.12	-
Lead	400	1,000	NA	NA	81	82.3	92.2	48.1	60.7	58.1	109	7.69	52.6	5.32	6.15	2.29	1.83	1.02	-
Mercury	20	610	NA	NA	0.08	0.08	0.7	1.41	2.98	0.06	0.33	ND <0.03	ND <0.03	ND <0.03	ND <0.03	ND <0.03	ND <0.03	ND <0.03	-
Nickel	1,400	7,500	NA	NA	8.24	9.12	11.5	11.6	18.3	9.46	13.1	7.95	7.06	14.8	3.37	2.48	3.63	6.48	-
Silver	340	10,000	NA	NA	ND <0.43	ND <0.38	ND <0.40	ND <0.34	ND <0.37	ND <0.32	ND <0.42	ND <0.32	ND <0.31	ND <0.37	ND <0.36	ND <0.38	ND <0.32	ND <0.33	-
Vanadium	470	14,000	NA	NA	25.5	30.5	39.8	42.7	27.6	25.4	30.5	18.5	22.8	33.4	32.1	7.31	14.3	15.5	-
Zinc	20,000	610,000	NA	NA	93.2	79.5	165	237	161	62	160	39.8	39.4	41.3	9.45	7.13	8.88	15.8	-
SPLP Metals (mg/L)																			
Antimony	NA	NA	0.06	NA	ND <0.005	ND <0.005	ND <0.005	-	ND <0.005	-	ND <0.005	-	ND <0.005	ND <0.005	ND <0.005	ND <0.005	-	-	-
Arsenic	NA	NA	0.5	NA	ND <0.004	ND <0.004	ND <0.004	-	ND <0.004	-	0.007	-	ND <0.004	ND <0.004	ND <0.004	ND <0.004	-	-	-
Barium	NA	NA	10	NA	0.02	0.014	ND <0.010	-	ND <0.010	-	0.04	-	0.024	0.016	ND <0.010	ND <0.010	-	-	-
Beryllium	NA	NA	0.04	NA	ND <0.001	ND <0.001	ND <0.001	-	ND <0.001	-	ND <0.001	-	ND <0.001	ND <0.001	ND <0.001	ND <0.001	-	-	-
Cadmium	NA	NA	0.05	NA	ND <0.005	ND <0.005	ND <0.005	-	ND <0.005	-	ND <0.005	-	ND <0.005	ND <0.005	ND <0.005	ND <0.005	-	-	-
Chromium	NA	NA	0.5	NA	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	-	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Copper	NA	NA	13	NA	0.017	0.011	ND <0.010	-	ND <0.010	-	0.011	-	ND <0.010	0.013	ND <0.010	ND <0.010	-	-	-
Lead	NA	NA	0.15	NA	0.018	ND <0.010	ND <0.010	-	ND <0.010	-	0.025	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Mercury	NA	NA	0.02	NA	ND <0.0005	ND <0.0005	ND <0.0005	-	ND <0.0005	-	ND <0.0005	-	ND <0.0005	ND <0.0005	ND <0.0005	ND <0.0005	-	-	-
Nickel	NA	NA	1	NA	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	-	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Silver	NA	NA	0.36	NA	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	-	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Vanadium	NA	NA	0.5	NA	ND <0.010	ND <0.010	0.013	-	ND <0.010	-	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Zinc	NA	NA	50	NA	0.02	0.033	ND <0.010	-	ND <0.010	-	0.032	-	ND <0.010	0.019	ND <0.010	ND <0.010	-	-	-

Notes:

CT DEEP RSRs - Connecticut Department of Energy & Environmental Protection Remediation Standard Regulations

RES DEC - Residential Direct Exposure Criteria

I/C DEC - Industrial/Commercial Direct Exposure Criteria

GB PMC - Pollutant Mobility Criteria for groundwater class GB

10XGWPC - Ten Times the Groundwater Protection Criteria

mg/Kg - milligrams per kilogram

mg/L - milligrams per liter

CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons

VOCs - Volatile Organic Compounds

SVOCs - Semi Volatile Organic Compounds

PCB - Polychlorinated Biphenyl

SPLP - Synthetic Precipitation Leaching Procedure

ND - Not detected above laboratory limits

NE - CTDEEP RSR Criteria not established

NA - Not Applicable

* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.

** - GB PMC values are established for leachable metals and PCBs using TCLP or SPLP analysis.

[1] - Xylene criteria apply to Total Xylenes only

^ - DEC does not apply to samples collected at depths greater than 15'

~ - PMC does not apply to sammples collected below the seasonal high watertable

Only compounds detected are summarized in the table (compounds that are not listed were not detected)

Bolded and boxed - Concentration exceeds RSR Criteria

Bolded Only - Concentration exceeds APS Criteria

- Sample not analyzed

Table 3
Groundwater Analytical Data Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

So on Laboratory ID Sample Date Duplicate	CT DEEP RSRs			MW-2BR BZ39893 11/10/2017 -	MW-3BR BZ39264 11/9/2017 -	MW-7D BZ39261 11/9/2017 -	MW-8SR BZ39894 11/10/2017 -	MW-10BR BZ39263 11/9/2017 -	MW-14S BZ39267 11/9/2017 -	MW-14D BZ39268 11/9/2017 -	MW-16S BZ39896 11/10/2017 -	MW-17S BZ39895 11/10/2017 -	MW-18D BZ39262 11/9/2017 -	MW-19S BZ39266 11/9/2017 MW-Dup	MW-DUP BZ39270 11/9/2017 MW-19S	MW-21S BZ39269 11/9/2017 -	MW-23S BZ39265 11/9/2017 -	EQ BLANK BZ39271 11/9/2017 -	TRIP BLANK BZ39272 11/9/2017 -	TRIP BLANK BZ39897 11/10/2017 -
	SWPC	RES VC^	I/C VC^																	
CT ETPH (ug/L)	250*	250*	250*	ND <67	84	ND <68	ND <68	78	ND <66	ND <66	ND <67	ND <67	**530**	ND <69	ND <67	ND <68	ND <66	ND <66	-	-
Total Cyanide (ug/L)	52	NE	NE	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	-	-
VOCs (ug/L)																				
1,1,1-Trichloroethane	62,000	20,400	50,000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	1.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
1,2,4-Trimethylbenzene	150*	940*	12800*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	8.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
1,3,5-Trimethylbenzene	260*	730*	10000*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	3.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Benzene	710	215	530	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	2.5	ND <0.70	ND <0.70	1.8	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70
Bromodichloromethane	510*	1.1*	35*	ND <0.50	1.2	1.1	ND <0.50	0.88	ND <0.50	ND <0.50	ND <0.50	ND <0.50	3.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
Carbon disulfide	150*	2100*	5200*	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	33	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chloroform	14,100	287	710	ND <1.0	7.8	8.1	ND <1.0	15	ND <1.0	ND <1.0	ND <1.0	ND <1.0	18	ND <1.0	ND <1.0	ND <1.0	3.5	ND <1.0	ND <1.0	ND <1.0
Dibromochloromethane	1,020	NE	NE	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	0.58	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
Ethylbenzene	580,000	50,000	50,000	ND <1.0	1.3	ND <1.0	ND <1.0	ND <1.0	ND <1.0	1.1	ND <1.0	ND <1.0	22	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Isopropyl benzene (cumene)	210*	900*	2200*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	2.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
m,p-Xylene[1]	270*	21,300	50,000	ND <1.0	1.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	16	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Methyl tert butyl ether	10,000*	50,000	50,000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	1.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Methylene chloride	48,000	50,000	50,000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	2.8	ND <1.0	ND <1.0
Naphthalene	210*	NE	NE	ND <1.0	19	ND <1.0	ND <1.0	2.0	ND <1.0	5.0	ND <1.0	ND <1.0	44	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
o-Xylene[1]	270*	21,300	50,000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	11	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Tetrachloroethene	88	1,500	3,820	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	6.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Toluene	4,000,000	23,500	50,000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	3.7	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Total Xylenes	270*	21,300	50,000	ND <1.0	1.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	27	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
SVOCs (ug/L)																				
2-Methylnaphthalene	62*	1,000*	13,100*	ND <0.95	3.1	ND <0.99	ND <0.98	ND <0.94	ND <0.94	ND <0.94	ND <0.96	ND <0.97	28	ND <0.98	ND <0.98	ND <0.94	ND <0.95	ND <0.94	-	-
Acenaphthene	150*	30,500	50,000	ND <0.05	1.3	0.92	ND <0.05	0.09	ND <0.05	0.39	ND <0.05	ND <0.05	8.4	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Acenaphthylene	0.3	NE	NE	ND <0.05	**1.6**	0.08	0.22	0.26	ND <0.05	ND <0.05	ND <0.05	ND <0.05	**21**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Anthracene	1,100,000	NE	NE	ND <0.05	0.35	0.06	0.1	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	1.7	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Benz(a)anthracene	0.3	NE	NE	ND <0.05	ND <0.05	0.07	**0.41**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.06	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Benzo(a)pyrene	0.3	NE	NE	0.06	ND <0.05	ND <0.05	**0.86**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Benzo(b)fluoranthene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	**0.57**	ND <0.05	ND <0.05	0.06	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Benzo(q,h,i)perylene	150*	NE	NE	ND <0.19	ND <0.20	ND <0.20	0.74	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.20	ND <0.20	ND <0.19	ND <0.19	ND <0.19	-	-
Benzo(k)fluoranthene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	**0.56**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
bis(2-Ethylhexyl)phthalate	59	NE	NE	ND <0.48	ND <0.49	ND <0.49	ND <0.49	ND <0.47	ND <0.47	0.47	ND <0.48	ND <0.49	ND <0.48	ND <0.49	ND <0.49	ND <0.47	ND <0.48	ND <0.47	-	-
Chrysene	0.54*	NE	NE	ND <0.05	ND <0.05	0.06	0.49	ND <0.05	ND <0.05	0.06	ND <0.05	ND <0.05	0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Dibenz(a,h)anthracene	0.3*	NE	NE	ND <0.01	ND <0.01	ND <0.01	0.1	ND <0.01	ND <0.01	0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	-	-
Dibenzofuran	40*	460*	5,800*	ND <0.05	0.11	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.83	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Fluoranthene	3,700	NE	NE	ND <0.05	0.29	0.34	0.38	0.09	ND <0.05	0.13	ND <0.05	ND <0.05	0.82	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Fluorene	140,000	NE	NE	ND <0.10	0.98	0.24	ND <0.10	0.14	ND <0.09	ND <0.09	ND <0.10	ND <0.10	7.0	ND <0.10	ND <0.10	ND <0.09	ND <0.10	ND <0.09	-	-
Indeno(1,2,3-cd)pyrene	0.54*	NE	NE	ND <0.05	ND <0.05	ND <0.05	**0.64**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Naphthalene	210*	NE	NE	ND <0.10	8.7	ND <0.10	ND <0.10	1.1	ND <0.09	ND <0.09	ND <0.10	ND <0.10	130	ND <0.10	ND <0.10	ND <0.09	ND <0.10	ND <0.09	-	-
Phenanthrene	14*	NE	NE	ND <0.05	2	0.09	0.09	0.32	ND <0.05	0.11	ND <0.05	ND <0.05	5.4	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Pyrene	110,000	NE	NE	0.08	0.37	0.49	0.76	0.11	ND <0.05	0.15	ND <0.05	ND <0.05	0.96	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	-
Metals (ug/L)																				
Antimony	86,000	NE	NE	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	14	ND <5	-	-
Barium	2200*	NE	NE	347	135	176	71	144	243	168	23	31	82	74	74	216	91	ND <2	-	-
Chromium	NE	NE	NE	10	96	10	4.0	144	144	364	2.0	ND <1	26	3.0	ND <1	2.0	13	ND <1	-	-
Copper	48	NE	NE	ND <5	ND <5	ND <5	12	ND <5	6.0	13	ND <5	ND <5	7.0	ND <5	ND <5	ND <5	ND <5	ND <5	-	-
Lead	13	NE	NE	ND <2	ND <2	ND <2	3.0	ND <2	ND <2	4.0	ND <2	2.0	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	-	-
Nickel	880	NE	NE	ND <1	ND <1	2.0	2.0	1.0	729	84	ND <1	ND <1	3.0	ND <1	ND <1	ND <1	2.0	ND <1	-	-
Vanadium	270*	NE	NE	ND <2	4.0	7.0	4.0	10	ND <2	4.0	ND <2	ND <2	7.0	ND <2	ND <2	ND <2	6.0	ND <2	-	-
Zinc	123	NE	NE	4.0	ND <2	7.0	8.0	42	13	16	ND <2	ND <2	10	ND <2	ND <2	3.0	10	ND <2	-	-

Notes:
CT DEEP RSRs - Connecticut Department of Energy & Environmental Protection Remediation Standard Regulations
SWPC - Surface Water Protection Criteria
RES VC - Residential Volatilization Criteria
I/C VC - Industrial/Commercial Volatilization Criteria
ug/L - micrograms per Liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
ND - Not detected above listed laboratory reporting limit
NE - RSR criteria not established
* - Additional Polluting Substance and Alternative Criteria approved by CTDEEP for use with permission on a site-by-site basis.
[1]- Xylene criteria apply to Total Xylenes only
^ - Volatilization Criteria Does Not Apply to Wells Screen Greater Than 15' Below the Water table
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
Bolded and boxed - Concentration exceeds RSR value
- Sample not analyzed

Table 4
Sediment Analytical Data Summary
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID	SED-01	SED-02	SED-DUP	SED-03	SED-04	SED-05	SED-06
Laboratory ID	BZ40749	BZ40750	BZ40755	BZ40751	BZ40752	BZ40753	BZ40754
Sample Date	11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017
Duplicate			SED-02				
CT ETPH (mg/Kg)	170	310	250	ND <290	ND <290	330	1,100
Total Organic Carbon (mg/Kg)	19,000	17,000	25,000	5,100	6,200	10,000	24,000
VOCs (mg/Kg)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs (mg/Kg)							
2-Methylnaphthalene	0.42	ND<0.31	ND<0.30	ND<0.27	ND<0.26	ND<0.31	ND<3.0
Acenaphthene	1.3	ND<0.31	ND<0.30	ND<0.27	ND<0.26	ND<0.31	ND<3.0
Acenaphthylene	0.38	0.42	0.49	0.58	0.29	0.41	ND<3.0
Anthracene	3.3	0.9	0.79	0.88	ND<0.26	0.59	ND<3.0
Benz(a)anthracene	7.2	3.0	2.7	4.0	1.0	1.9	3.9
Benzo(a)pyrene	6.1	2.7	2.4	3.6	1.1	1.8	3.6
Benzo(b)fluoranthene	5.3	2.8	2.2	3.1	0.89	1.7	ND<3.0
Benzo(g,h,i)perylene	3.3	1.6	1.4	1.8	0.78	1.1	ND<3.0
Benzo(k)fluoranthene	5.4	2.6	2.1	3.4	1.0	1.7	3.4
Carbazole	1.5	0.66	ND<0.43	ND<0.38	ND<0.37	ND<0.44	ND<4.3
Chrysene	7.6	3.5	3.0	4.1	1.2	2.1	4.7
Dibenz(a,h)anthracene	0.8	ND<0.31	ND<0.30	0.43	ND<0.26	ND<0.31	ND<3.0
Dibenzofuran	1.1	ND<0.31	ND<0.30	ND<0.27	ND<0.26	ND<0.31	ND<3.0
Fluoranthene	19	7.1	6.1	6.6	1.5	3.4	7.0
Fluorene	1	0.35	0.35	0.31	ND<0.26	0.32	ND<3.0
Indeno(1,2,3-cd)pyrene	3.9	1.7	1.5	2.0	0.77	1.1	ND<3.0
Naphthalene	0.77	ND<0.31	ND<0.30	ND<0.27	ND<0.26	ND<0.31	ND<3.0
Phenanthrene	19	4.3	3.8	2.5	0.81	2.2	5.5
Pyrene	16	5.6	5.0	6.3	1.6	3.1	8.3
PCBs (mg/Kg)	ND<0.44	ND<0.45	ND<0.42	ND<0.39	ND<0.38	ND<0.43	ND<0.43
Total Cyanide (mg/Kg)	ND<0.61	ND<0.68	ND<0.59	ND<0.59	ND<0.57	ND<0.61	ND<0.59
Metals (mg/Kg)							
Arsenic	ND <0.79	2.26	1.35	1.5	2.1	1.26	3.95
Barium	29	49.5	36.3	27.5	40.6	29.6	24.5
Cadmium	ND <0.40	ND <0.44	ND <0.41	0.4	0.89	ND <0.46	0.94
Chromium	9.22	17.5	10.1	10.2	14.6	11.3	17.4
Copper	16.1	26.1	28.4	27.6	46.4	20	2,190
Lead	37.7	64.1	46.1	26.1	78.2	28.8	153
Mercury	ND <0.03	ND <0.03	ND <0.03	ND <0.03	ND <0.03	ND <0.03	0.1
Nickel	6.81	8.7	7.25	7.53	9.02	7.97	12.2
Vanadium	21.7	37.3	29.5	31.9	41.5	31.7	26.5
Zinc	53.2	77.4	86.8	77.6	88.5	70.9	292

Notes:

mg/Kg - milligrams per kilogram

NE - Not Established

ND- Not detected to the reporting limit shown

CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons

VOCs - Volatile Organic Compounds

PAHs - Polycyclic Aromatic Hydrocarbons

BDL - Below Detection Limits

Only compounds detected are summarized in the table (compounds that are not listed were not detected)

Table 5
Summary of Surface Water Analytical Data
Rockville Former MGP Site
13 Maple Street
Rockville, CT

Sample ID	**CT Water Quality Standards Aquatic Life Criteria**		**SW-01**	**SW-Dup**	**SW-02**	**SW-03**	**SW-04**
Laboratory ID			BZ40757	BZ40761	BZ40758	BZ40759	BZ40760
Sample Date			11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017
Duplicate			SW-Dup	SW-01	-	-	-
	Acute	Chronic					
CT ETPH (ug/L)	NE	NE	ND<66	ND<66	ND<68	ND<68	ND<70
Total Cyanide (ug/L)	22	5.2	ND<10	ND<10	ND<10	ND<10	ND<10
VOCs (ug/L)	Varies	Varies	BDL	BDL	BDL	BDL	BDL
SVOCs (ug/L)	Varies	Varies	BDL	BDL	BDL	BDL	BDL
Total Metals (ug/L)							
Barium	NE	NE	50	51	53	47	49
Zinc	65	65	2.0	3.0	ND <2	ND <2	ND <2
Dissolved Metals (ug/L)							
Barium	NE	NE	46	46	56	47	48
Chromium[1]	323	42	1.0	ND<1	1.0	ND<1	ND<1
Zinc	65	65	4.0	3.0	4.0	3.0	6.0

Notes:
ug/L - micrograms per Liter
CT ETPH - Connecticut Extractable Total Petroleum Hydrocarbons
VOCs - Volatile Organic Compounds
SVOCs - Semi Volatile Organic Compounds
NE - Criteria not established
1 - Trivalent chromium standard used based on historic site use
ND - Not detected above listed laboratory reporting limit
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
- Sample not analyzed

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
	Rockville Former MGP Site (On-Site)															
1	Former Retorts/ Generating Room	VOCs (BTEX), SVOCs, Metals, Total Cyanide, ETPH	Coal and oil used to generate manufactured gas. By-products generated could include coal tar residues, coal ash, coke, complexed cyanide compounds during the production of gas. Materials could have been used as fill in the building foundation.	Surface soils Subsurface soils Groundwater	TB-47	SB-07	MW-9S/ MW-9D	MW-9S/MW-9D	Phase III	Subsurface Soil samples from MW-09 contained VOC (ethylbenzene), SVOCs above GB PMC, metals detected. Pesticides detected (GB PMC exempt) Fill observed (ash, brick) and creosote sheen and odors on auger cuttings.	PAHs and ETPH above RES and I/C DEC and GB PMC Fill observed (ash, brick, coal) Staining with petroleum odors (10-11.5 ft.) Coal tar impacts (16 to 25, 33-33.5ft., 39-40 ft.)	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC APS. MW-9D: VOC,ETPH and TCN not detected. Naphthalene and metals detected below the SWPC.	Surface water (Hockanum River) upgradient of the AOC	Phase II Investigation (1992) Phase III Investigation (2016/2017)	Remedial evaluation pending the completion of the Phase III investigation.
2	Former Purifying House	VOCs (BTEX), SVOCs, Metals, Total Cyanide, ETPH	Manufactured gas was passed through lime used to scrub impurities (sulphur/cyanide) from the gas (Purifier waste). Materials could have been used as fill in the building foundation.	Surface soils Subsurface soils Groundwater	TBX1 TB-3 TB-4 TB-5 TB-20 TB-21 TB-22	TP-01 TP-02 TP-03	MW-9S/ MW-9D	MW-9S/MW-9D	Phase III	Soil samples from MW-09 contained VOC (ethylbenzene), SVOCs above GB PMC, metals detected. Pesticides detected (GB PMC exempt) Fill observed (brick) and sheen and strong odors on auger cuttings.	PAHs above RES and I/C DEC and GB PMC, ETPH above RES DEC in TP-03. PAHs detected above RES and I/C DEC and GB PMC. Cyanide detected. Fill observed (bricks, metal pieces, metal conduit, cast iron pipe, ash)	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC APS. MW-9D: VOC,ETPH and cyanide not detected. Naphthalene and metals detected below the SWPC.	Surface water (Hockanum River) upgradient of the AOC	Phase II Investigation (1992) Phase III Investigation (2016/2017)	Remedial evaluation pending the completion of the Phase III investigation.
3	Former Gas Holder #1 [Gasometer-22,000 ft^3 Capacity]	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual coal tar droplets collected inside the bottom of the holder which is likely subgrade based upon its age (pre-1900 and boring refusal). Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	TB-18 (Refusal 13.6') TB-19 (Refusal 14') TB-6 (Refusal 15.5') TB-7 (Refusal 16.5') TB-45	SB-04 SB-05 SB-06 TP-04 TP-05	MW-10S MW-10M MW-10D MW-10BR	MW-10S MW-10M MW-10D MW-10BR	Phase III	Surface soil: PAHs detected. Soil samples from MW-10 contained VOCs, SVOCs, pesticides above GB PMC but below the water table. Strong sheen and odor observed on auger cuttings. Fill observed TB-18 and TB-19.	ETPH and VOCs above RES & I/C DEC and/or GB PMC in SB-05, SB-06, and TP-05. DEC does not apply to SB-05 due to sample depth greater than 15' Fill observed (ash, slag, metal) in SB-06, TP-04, TP-05 Heavily coal tar impacted soils within the Gas Holder #1 (5.75 to 14 feet). Outside holder coal tar impacts observed in SB-04, SB-05 19.5- 39 feet, 44.5 ft. to 50 feet, 71 to 74 ft.	MW-10S: VOCs and cyanide detected, PAHs and metals above SWPC. MW-10M: VOCs (xylenes) detected, PAHs and metals above SWPC MW-10D: SVOCs and metal (zinc) above SWPC	MW-10SR: Not sampled due to visual observations of tar globules/ staining during development MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC. Metals detected. MW-10D: Not sampled due to visual observations of tar globules/ staining during development MW-10BR: ETPH, PAHs , VOCs, and metals detected.	Surface water (Hockanum River) upgradient of the AOC	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2016/2017)	Remedial evaluation pending the completion of the Phase III investigation. Supplemental Phase III ESA proposed in 2018.
4	Former Gas Holder #2 [Gasometer-22,000 ft^3 Capacity]	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual coal tar droplets collected inside the bottom of the holder which is likely subgrade based upon its age (pre-1900) and boring refusal. Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	TBX-4 TB-16 (Refusal 18') TB-17 TB-8 TB-9	SB-02 SB-03 SB-04 SB-05 TP-05 TP-06	MW-10S MW-10M MW-10D MW-10BR	MW-10S MW-10M MW-10D MW-10BR	Phase III	Surface soil: PAHs detected. Soil samples from MW-10 contained VOCs, SVOCs, pesticides above GB PMC but below the water table Strong sheen and odor observed on auger cuttings (TB-16 and TB-17). Fill (bricks) observed in TB-16.	PAHs, ETPH and VOCs above RES & I/C DEC and GB PMC in SB-03 and SB-05. PAHs and ETPH above GB PMC in SB-02. Fill observed (ash, brick, coal) in SB-05, Fill (wood, glass, metal) observed in TP-05. <u>Coal tar impacts:</u> SB-02: 18 to 39 ft. SB-03: 10.5 to 15 ft. SB-04: 2.5-37 ft. 44.5-50 ft. SB-05: 19.5 to 39 ft. , 71-74 ft. <u>TP-05.: 5.75 -6.0 ft.</u>	MW-10S: VOCs and cyanide detected, PAHs and metals above SWPC. MW-10M: VOCs (xylenes) detected, PAHs and metals above SWPC MW-10D: SVOCs and metal (zinc) above SWPC	MW-10SR: Not sampled due to visual observations of tar globules/ staining during developmenet MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC MW-10D: Not sampled due to visual observations of tar globules/ staining during development MW-10BR: ETPH, PAHs , VOCs, and metals detected.	Surface water (Hockanum River) upgradient of the AOC	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2016/2017)	Remedial evaluation pending the completion of the Phase III investigation. Supplemental Phase III ESA proposed in 2018.

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
5	Former Gas Holder #3 [Gasometer-110,000 ft^3 Capacity)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Residual coal tar droplets collected inside the bottom of the holder which is likely a shallow subgrade based upon its age (post 1900). Possible leaks or spills from the holder to the soils.	Surface soils Subsurface soils Groundwater	SS-3A CSS-3 TB-13 (Refusal 8') TB-14 (Refusal 6.5')	TP-07	Groundwater not investigated. Water encountered inside the holder foundation.	MW-7S/MW-7D	Phase III	Surface soils: PAHs and metals detected Fill observed	Surface soils: PAHs, cyanide and metals detected Fill observed	Groundwater investigations not completed in AOC.	MW-7S: ETPH and PAHs detected above the SWPC. VOCs and metals detected. MW-7D: PAHs, VOCs and metals detected	Surface water (Hockanum River) upgradient of the AOC	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2016/2017)	Investigation complete. Soil remediation is not required. Groundwater impacts are likely associated with AOC-3 and AOC - 4 (Holder #1 and Holder #2). Groundwater impacts are addressed under site-wide groundwater AOC-15.
6	Former Coal Shed	PAHs, Metals	Coal stockpiled for MGP could be present in the soils.	Surface soils Subsurface soils	Soils not investigated	SS-102 SS-103	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	Phase II	No investigations completed in the AOC.	PAHs, ETPH, and lead above the RES and I/C DEC and GB PMC in SS-102. PCBs detected. PAHs, ETPH, and arsenic above the RES and I/C DEC and/or GB PMC in SS-103. Cyanide detected. Large pieces of coal observed in SS-102 location.	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	No surface water at the location.	Phase III Investigation (2017)	Delineation and excavation of elevated PAH concentrations and benzo (a) pyrene in the top 2 feet in vicinity of SS-102. Additional Phase II ESA of this AOC and Inner Substation Area proposed.
7	Former Transformer House	PCBs, ETPH	Transformer use. Possible leaks or spills could have impacted soils.	Surface soils Subsurface Soils	Soils not investigated (within active transformer yard)	SS-100 SS-101	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	Phase II	No investigations completed in the AOC.	PAHs above RES and I/C DEC and GB PMC in SS-100. Arsenic above RES and I/C DEC in SS-100 and SS-101. ETPH and cyanide detected.	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	No surface water at the location.	Phase III Investigation (2017)	Phase III ESA investigations are proposed to assess the nature and extent of fill within the Inner Substation Area (AOC-8 below)
8	Current Substation	PCBs, ETPH, Metals, ETPH	Possible leaks or spills from transformers	Surface soils Subsurface Soils If significant release: groundwater	TB-38 TB-39S TB-32 MW-8S	SS-100 SS-101 SS-102 SS-103 SS-104 SS-105 SS-106 MW-8SR	MW-8S	MW-2SR, MW-2D, MW-2BR, MW-5S, MW-5D, MW-8SR, MW-16S, MW-17S	Phase III	PAHs and metals detected. Fill (sand) observed	Arsenic and ETPH above RES and I/C DEC in SS-100, SS-101, SS-104 and SS-106. PAHs, ETPH, and lead above the RES and I/C DEC and GB PMC in SS-102. PCBs detected. PAHs, ETPH, and arsenic above the RES and I/C DEC and/or GB PMC in SS-103. Cyanide detected. ETPH also above RES DEC, I/C DEC and GB PMC in SS-104 and Res DEC in SS-106. PAHs above RES and I/C DEC and GB PMC in SS-100, SS-104, SS-105 and SS-106.	MW-8S: Metals detected above the SWPC. cyanide detected.	MW-2SR: Not sampled due to visual observations of tar globules MW-2D: Not sampled due to visual observations of tar globules MW-2BR: PAHs detected below the SWPC. Metals detected. MW-5S: PAHs detected above SWPC. ETPH, VOCs, and metals detected. MW-5D: Metals detected. MW-8SR: PAHs detected above the SWPC. Elevated metals detected. Possibly associated with turbidity in sample. MW-16S: Metals detected . MW-17S: VOCs (tetrachloroethene) detected below SWPC. Metals detected.	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase II Investigation (1992) Phase III Investigation (2016/2017)	Phase III ESA investigations are proposed to assess the nature and extent of fill within the Inner Substation Area . Groundwater impacts in MW-5S are likely attributable to AOC-11
9	Historic Site Fill	VOCs, SVOCs, Metals, PCBs, ETPH	Historic placement of fill during the development of Site.	Surface soils Subsurface soils	TB-02, TB-03,TB-04, TB-06, TB-13, TB-14, TB-16, TB-17, TB-18, TB-19, TB-20, TB-21, TB-22, TB-27, TB-31, TB-32, TB-33, TB-34, TB-38, TB-39, TB-40, TB-42, TB-45, TB-47, MW-02D, MW-04D, MW-05S, MW-05D, MW-10S, MW-10M, MW-10D Historic fill was identified in multiple borings which overlap with other AOCs	SB-01, SB-02, SB-03, SB-04, SB-05, SB-06, SB-07, SB-08, SB-09, SB-09A, SB-10, SB-11, SB-12, SB-13, SB-20, SB-20, SB-21, SB-22, SB-23, SB-24, SB-25, SB-26, SB-27, SS-100, SS-101, SS-102, SS-103, SS-104, SS-105, SS-106, SS-107, TP-01, TP-02, TP-03, TP-04, TP-05, TP-06, TP-07, MW-2BR, MW-8SR, MW-16S, MW-17S, MW-18D Historic fill was identified in	Not Applicable	Not Applicable	Phase III	Fill (i.e., ash and bricks observed)	Fill (i.e., ash, bricks, slag, metals, glass, building debris, coal, and site fill) and former MGP plant foundations observed in several Phase III investigation locations. Fill as deep as 15 ft.	Wells screened below fill (See AOC-15)	Wells screened below fill (See AOC-15)	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase II Investigation (1992) Phase III Investigation (2017)	Additional Phase III Investigations proposed at the site to assess nature and extent of fill. Remedial evaluation pending the completion of the Phase III investigation.

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
10	Hockanum River Sediment	PAHs and Metals	Possible historic discharges to the river from the Site, historic discharges from up gradient industries, current storm water run-off and anthropogenic sources.	Sediment	R-Sed-A/B/C/D Sediments (A,B,C, D)	SED-01 SED-02 SED-03 SED-04 SED-05 SED-06	Not Applicable	Not Applicable	Phase III	PAHs and metals detected above sediment screening criteria. VOC (methylene chloride) detected.	ETPH, PAHs, and metals detected. Highest PAH concentrations were detected upstream at SED -01. ETPH detected in all sediment samples. Metals detected in all sediment samples. Elevated copper, lead and zinc detected in SED-06.	Not applicable.	Not applicable.	Metals (Barium chromium, zinc) below criteria. Concentrations detected at upstream sample location.	Phase II Investigation (1992) Phase III Investigation (2017)	Additional sediment sampling proposed as part of Phase III ESA to assess sediment in the vicinity of SED-06 which is located adjacent to a cast iron outfall pipe. Additional sediment sampling is proposed at outfalls at Maple Avenue to assess sediment input to tributary to the Hockanum River.
11	Coal Tar impacts and Fill Observed at TB-33 (Southwestern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Historic placement of fill.	Surface soils Subsurface Soils Groundwater	TB-33 MW-5S MW-5D	SB-11 MW-16S MW-17S	MW-5S MW-5D	MW-5S MW-5D MW-16S MW17S	Phase III	VOCs, PAHs and metals detected. Fill (sand) with coal tar observed.	ETPH and PAHs detected above RES and I/C DEC and GB PMC in SB-11. Naphthalene (VOC) detected above GB PMC and arsenic and lead detected above RES and I/C DEC in SB-11. Fill (Ash and Slag) observed in SB-11. Sheen and coal tar odor observed from 5 to 8 feet.	MW-5S: PAH (Acenaphthylene) detected above the SWPC. VOC (xylene) and metal (chromium) detected. MW-5D: VOC (Benzyl Alcohol) and metals detected above SWPC. SVOC (2-methylphenol) detected.	MW-5S: ETPH and VOCs detected below SWPC. PAHs detected above SWPC. Metals detected. MW-5D: Metals detected MW-16S: Metals detected MW-17S: VOC (tetrachloroethene) detected below SWPC. Metals detected.	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase II Investigation (1992) Phase III Investigation (2016/ 2017)	Additional Phase III ESA investigations are proposed to assess soils in the vicinity of the sewer line that transverses the southern portion of the Inner Substation.
12	Creosote/ Coal Tar impacts and Fill Observed (Southeastern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Historic placement of fill. Possible migration for spills or leaks from adjacent Retorts (AOC-1) or Purifying House (AOC-2).	Surface soils Subsurface Soils Groundwater	CSS-5 TB-2 TB-24 TB-28 MW-6S	SB-08 SB-09 SB-09A SB-10 SB-24 SS-107 SS-108	MW-2S MW-2D MW-6S MW-6D	MW-2SR MW-2D MW-2BR MW-6S MW-6D	Phase III	Surface Soil: PAHs exceeded the Res DEC and GB PMC. Subsurface soils: VOC(methylene chloride), SVOCs, cyanide, and metals detected. Fill (ash and sand fill), coal tar impacts sheen observed.	PAHs detected above RES and I/C DEC and GB PMC in SB-08, SB-09A. PAHs detected in SB-24 above the RES DEC and GB PMC in SB-24. ETPH detected above RES DEC in SB-09A. Fill (brick, glass, slag, and/or ash) observed in SB-08, SB-09A and SB-24. SB-08: Staining and fuel oil odor 11-12 ft. Staining and coal tar odor from 24 - 29 ft. SB-10: Sheen and coal tar odor 9 to 24.5 ft.	MW-2S: Dry. MW-2D: Metals and PAHs detected above the SWPC and VOCs (xylene and ethylbenzene detected). MW-6S: Metals detected above the SWPC. SVOC (bis2-ethylhexylphthalate) detected.	MW-2SR/MW-2D: Not sampled due to visual observations of tar globules MW-2BR: PAHs detected below the SWPC. Metals detected. MW-6S: Metals detected. MW-6D: PAHs detected below SWPC. Metals detected.	Hockanum River located adjacent but up gradient of location.	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2017)	Additional Phase III ESA investigations are proposed to further assess the nature and extent of fill in this area of the site.
13	Possible Historic Fill to the south of the Hockanum River	PAHs	Possible historic placement of fill.	Surface Soil Subsurface Soil	SS-5A, SS5B, SS-5C, SS-5D TBX2 TB-63 and TB-64	SB-25 SB-26 SB-27	MW-11S MW-11D MW-12S MW-12D	MW-11S MW-11D MW-12S MW-12D	Phase III	Surface soil and shallow subsurface soils: PAHs exceeded the RDEC, IDEC and GB PMC.	Surface Soil: PAHs detected above RES and I/C DEC and GB PMC in SB-25. Initial PAH SPLP results indicate PAHs are not leachable and in compliance with GB PMC Fill (slag and/or ash) observed in SB-26 and SB-27.	MW-11S/ MW-11D MW-12S / 12D No analytical data	MW-11S: Metals detected MW-11D: Cyanide detected below SWPC MW-12S/MW-12D: Metals detected	Hockanum River located adjacent and downgradient.	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2017)	Additional Phase III ESA investigations are proposed to further assess the nature and extent of fill in this area of the site.

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
14	Coal Tar impacts and Fill Observed (Northern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Impacted area to the north of former Gas Holders #1 and #2, Possible migration for spills or leaks from adjacent holders that migrated northward.	Surface soils Subsurface Soils Groundwater	TB-12, TB-36, TB-37,TB-40, TB-42 TB-46, TB-49A,TB-50, TB-51, TB-52, TB-53, TB-54, TB-55 TB-55A, TB-56, TB-58 , TB-59, TB-60, TB-61, TB-62, MW-1, MW-3S, MW-3D, MW-4S, MW-7S TBX5, TBX6 SS-3B. SS3-C, SS3-E, SS3-D, SS1-C, CSS-1, CSS-2	SB-01 SB-12 SB-13 SB-20 SB-21 SB-22 MW-18D	MW-1S, MW-1D, MW-3S, MW-3D, MW-4S, MW-4D	MW-1S, MW-1D, MW-3S, MW-3D, MW-3BR, MW-4S, MW-4D, MW-7S, MW-7D, MW-18D	Phase III	Surface Soil: PAHs detected above the Res DEC and GB PMC. Metals and cyanide detected. Subsurface soils: SVOCs detected above the Res and I/C DEC and GB PMC and VOCs and pesticide (lindane) detected above the GB PMC. Metals detected. Fill observed and coal tar odors and creosote sheen.	Shallow Subsurface Soils: PAHs detected in SB-21 above the RES DEC, I/C DEC and GB PMC. SPLP PAHs were not detected indicating PAHs are not leachable. PAHs detected in SB-22. PAHs, ETPH, VOCs, cyanide were not detected in SB-01, SB -12 and SB-13 in samples collected just above apparent apparent water table. Elevated concentrations of ETPH, VOCs, and SVOCs detected in SB-13 (25.5-27.5') below water table (~15ft.) Fill observed: Brick observed at 0.5-2.0 ft. in SB-21. Coal tar impacts were encountered SB-12: from 25-30 ft. (Staining, sheen and coated soils) and 37.5-39ft. (Strong coal tar odor) SB-13: 20-39 ft. (Staining and heavily coal tar coated soils and odors) SB-01: 29 to 31 ft. Sheen and coal tar odor.	MW-1S:Metals detected above the SWPC. MW-1D: Metals detected above the SWPC. SVOCs detected. MW-3S: Metals and PAHs detected above the SWPC. VOCs detected. MW-3D: Metals detected above the SWPC. SVOCs and VOC (1,1,1-TCA) detected MW-4S: Metals detected above the SWPC. cyanide, VOCs (1,1,1-TCA) and SVOC (bis2-ethylhexylphthalate) detected. MW4D: Lead detected above the SWPC.	MW-1S: ETPH and PAH (acenaphthylene) detected above SWPC MW-1D/MW-3S: Metals detected. MW-3D: Not sampled due to visual observations of tar globules/ staining during development MW-3BR: PAH (acenaphthylene) detected above SWPC. ETPH and VOCs detected. MW-4S/MW-4D: PAHs detected below SWPC MW-7S: ETPH, and PAHs detected above the SWPC. MW-7D: VOCs, PAHs and metals detected. MW-18D: ETPH and PAH (acenaphthylene) detected above SWPC. VOCs detected.	Hockanum River is located up gradient on -site	Phase II (1990/1991) Human Health Risk Assessment (1994) Phase III ESA (2017)	Additional Phase III ESA investigations are proposed to further assess the nature and extent of coal tar impacts in the northwest portion of the site and off-site to the northwest.
15	Site wide groundwater impacts	VOCs, SVOCs, Metals, PCBs, ETPH, Chromium, Barium, ETPH	Groundwater impacts from spills or leaks occurring at the site. Groundwater flows to the north away from the Hockanum River.	Groundwater	NA	NA	MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-8S, MW-9S, MW-9D, MW-10S, MW-10M, MW-10D, MW-11S, MW-11D, MW-12S, MW-12D	MW-1S, MW-1D, MW-2SR, MW-2BR, MW-2D, MW-3S, MW-3BR, MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-7S,MW-7D, MW-8SR, MW-9S, MW-9D, MW-10SR, MW-10M, MW-10BR,,MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-17S, MW-18D	Phase III	Soils not assessed	Soils not assessed	**Shallow:** ETPH, VOCs, PAHs, metals, and Cyanide above the SWPC. See above AOCs for individual wells **Deep:** ETPH, VOCs, PAHs, metals, and Cyanide above the SWPC.. See above AOCs for individual wells	**Shallow:** ETPH, VOCs, PAHs, and /or Cyanide above the SWPC. in MW-1S, MW-5S, MW7S, MW-9S, and MW-10M. Tar globules and staining observed in MW-2S, MW-10SR during development. See above AOCs for individual well summary of COCs. **Deep:** ETPH, PAH (acenaphthylene) above the SWPC in MW-18D. Tar globules and staining observed in MW-2D, MW-3D and MW-10D **Bedrock**: PAH (acenaphthylene) above SWPC [MW-3BR] . See AOCs above for individual wells.	Hockanum River is located up gradient on -site/ Losing Stream	Phase II Investigation (1992) Phase III Investigation (2016/2017)	Additional Phase III ESA investigation is proposed to assess the seasonality of groundwater conditions
Off-site AOCs																
16	Off-site Creosote Impacts St. Josephs School/Church Parking Lot	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Impacted area to the north of the property line. Possible migration of impacts to the north from the MGP. Shallow fill possible in the development of the property.	Subsurface Soils Groundwater Surface soils	TB-113, TB-115, TB-116, TB-117, TB-118, TB-119, TB-120, TB-121, TB-125, TB-126, TB-127, TB-130 R426-A, R426-B, R426-C, R426-D R437-A, R437-B, R437-C, R437-D R438-A, R438-B, R438-C, R438-D R446-A, R446-B, R446-C, R446-D R452-A, R452-B, R452-C, R452-D	SB-14, SB-15, SB-16, SB-17, MW-19S, MW-20S	MW-13S, MW-13D, MW-14S, MW-14D	MW-14S, MW-14D, MW-19S, MW-20S, MW-21S	Phase III	Subsurface soils: PAHs detected above the GB PMC VOCs (ethylbenzene, toluene, and xylene detected). Fill observed and coal tar odors an creosote sheen. Surface Soil: PAHs detected above the Res DEC and GB PMC.	PAHs, ETPH, VOCs, cyanide were not detected in SB-14, SB-15, SB-16, SB-17 in samples collected just above apparent water table. EPTH, VOCs, and PAHs detected in the deep soil samples collected from SB-14and MW-20S within coal tar impacted intervals below the water table.	MW-13S: Copper detected above the SWPC. Metals, SVOC (bis2-ethylhexylphthalate) detected. MW-13D: Metals detected. MW-14S: Metals detected. MW-14D Metals detected. VOC (tetrachloroethylene) and SVOC (bis2-ethylhexylphthalate) detected.	MW-14S: Metals detected. MW-14D: PAHs, VOCs and metals detected. MW-19S/ MW-21S: Metals detected MW-20S: Not sampled due to visual observations of tar globules and staining. SB-14: 20.5-23 ft. coated with coal tar material with coal tar odors. SB-15: 31.5-34 ft. veins coated with coal tar. MW-20S: 35-38 ft. black stained and sheen with coal tar odor.	Hockanum River is located upgradient on-site and approximately 400 feet to the west.	Phase II (off-site) 1993 Phase III Investigation (2017)	Additional Phase III ESA investigation is proposed to assess groundwater conditions at St. Joseph's Church property and to assess the seasonality of groundwater conditions Additional Phase III ESA investigations to the north and east of Maple Street.

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
17	Off-site Creosote Impacts Maple Street ROW	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Impacted area within the Maple Street ROW from 15 to 32 feet. Possible migration of impacts from the Retorts (AOC-1) Former Gas Holders #1, #2, (AOCs 3,+). Possible off-site fuel oil impacted in TB-101 and TB-103 from up gradient source of fuel oil.	Subsurface Soils Groundwater	TB-97, TB-99, TB-101, TB-103, TB-104, TB-105, TB-106, TB-111A, TB-11B, and TB-111C	SB-18, SB-19	Groundwater not investigated	Groundwater not investigated	Phase III	Subsurface Soils had concentrations of VOCs, SVOCs, pesticides (Aldrin, alpha-BHC, and 2-Hexanone) at concentrations above the GB-PMC but were located below the water table. Cyanide and metals were detected. Creosote impacts (sheen and odors) encountered from 15 to 32 feet.	ETPH, VOCs, and PAHs detected in SB-18 above the GB PMC. The DEC does not apply to SB-18 due to the sample depth greater than 15'. SPLP VOCs and PAHs detected. Petroleum staining/ sheen and odors 19-23ft. Coal tar staining/ odors from 24-29 ft. ETPH and PAHs were detected above the RES and I/C DEC and GB PMC in SB-19. Petroleum staining/ sheen and odors 11-19 ft. Coal tar staining/ odors from 19-26.5 ft.	Groundwater not tested.	Groundwater not tested.	Hockanum River located up gradient of location.	Phase II (off-site) 1993 Phase III Investigation (2017)	Off-site petroleum impacts are noted within the Maple Street ROW. Petroleum impacts also ere noted at #12 and #14 Maple Street. Impacts could be associated with former 1,000-gallon leaking underground storage tank at former 8 Maple Street residence or other off-site source. Remedial evaluation pending the completion of the Phase III investigation.
18	Petroleum Impacts #12 and #14 Maple Street	VOCs (BTEX), SVOCs, ETPH	Petroleum-impacted soils from 15 to 27 feet below grade from an up gradient source that migrated via groundwater flow onto the properties.	Subsurface soils Groundwater	TB-203, TB-204, TB-206, TB-219, TB-221, TB-224 (#8 Maple Street) TB-200 and TB-217 (#12 Maple Street)	Not investigated during Phase III	Groundwater not investigated	MW-23S	Phase III	Subsurface soils contained detections of PAHs. Boring log was not available during the CSM development.	Not investigated during Phase III	Groundwater not tested.	Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2017)	Phase I ESA identified a 1,000 leaking underground storage tank used for heating oil at the former 8 Maple Street Residence.
19	Suspected Fill #12 and #14 Maple Street	PAHs	PAHs detected in the shallow subsurface soils (TB-217) possibly from historic fill used in the development of the property.	Surface soils Subsurface soils	TB-217	Not investigated during Phase III	Groundwater not investigated	MW-23S	Phase II	Subsurface soils contained detections of PAHs, with a detection of (Benzo (a)pyrene) above the Res DEC, I/C DEC and GB PMC. Boring log was not available during the CSM development to assess for presence of fill.	Not investigated during Phase III	Groundwater not tested.	Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2017)	Possible historic fill associated with the development of property or potential off-site source.
20	Off-site Creosote Impacts (Residence #14 Maple Street)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Creosote-impacted soils (sheen and odor) between 30 and 37 feet. Creosote migrated beneath Maple Avenue onto the western portion of the property.	Subsurface soils Groundwater	TB-207, TB-210, TB-211, TB-215, MW-15D	Not investigated during Phase III	MW-15S MW-15D	MW-23S	Phase II	Subsurface soils contained detections of VOCs and PAHs at concentrations above the GB PMC. However, these impacts are likely below the water table and the GB PMC is not applicable.	Not investigated during Phase III	MW-15S: Metals and cyanide exceeded SWPC. VOC (MTBE detected). MW-15D: Metals detected above the SWPC.	Adjacent USPS ROW: MW-23S: VOC (chloroform) and metals detected below SWPC	Hockanum River located up gradient of location.	Phase II (off-site) 1994 Phase III Investigation (2017)	Access to property was not provided. Coal tar impacts were assessed with a soil boring within Maple Street ROW (AOC-17) Remedial evaluation pending the completion of the Phase III investigation.
21	Off-site Surface Soils Maple Street School [PAHs Detected above RSR Criteria]	PAHs	PAHs detected in surface soils and shallow subsurface soils at the Maple Street School property.	Surface soils	R453, R454, R455, R456 R501-A, R-501-B, R-501-C, R-501-D R502-A, R-502-B, R-502-C, R-502-D R503-A, R-503-B, R-503-C, R-503-D R504-A, R-504-B, R-504-C, R-504-D R505-A, R-505-B, R-505-C, R-505-D R506-A, R-506-B, R-506-C, R-506-D	Not investigated during Phase III	Groundwater not investigated	Groundwater not investigated	Phase II	Surface soils and shallow subsurface soils	Not investigated during Phase III	Groundwater not tested.	Groundwater not tested.	Hockanum River located up gradient of location.	Phase II- Surface Soil collection in 1995	Possible historic fill associated with the development of the school property or potential off-site source.

AOC #	AOC Description	COCs	Possible Release Mechanisms and Migration Pathways	Potentially Affected Media	Previous Investigation Soil Locations	Phase III Soil Locations	Previous Investigation Groundwater Locations	Phase III Investigation Groundwater Locations	Phases of Investigation Completed	Previous COCs in Soil	Phase III COCs in Soil	Previous COCs in Groundwater	Phase III COCs in Groundwater	COCs in Surface Water	Investigation Status	Remediation Status
22	Off-site Surface Soils 175 Union Street [PAHs Detected above RSR Criteria]	PAHs	PAHs are detected in surface soils at nearby off-site properties (175 Union Street and Tolland AWC)	Surface soils	R426-A,R426-B,R426-C, R426-D R437-A,R437-B,R437-C, R437-D R438-A,R438-B,R438-C, R438-D R446-A,R446-B,R446-C, R446-D R452-A,R452-B,R452-C, R452-D RBG2-B and RBG2-C	Not investigated during Phase III	Groundwater not investigated	Groundwater not investigated	Phase II	Surface soils and shallow subsurface soils	Not investigated during Phase III	Groundwater not tested.	Groundwater not tested.	Hockanum River located up gradient of location.	Phase II- Surface Soil collection in 1995	Possible historic fill associated with the development of the property or potential off-site source.
23	Off-site Groundwater Impacts	VOCs	Groundwater impacts from spills or leaks occurring at the site and migrating offsite.	Groundwater	NA	NA	MW-13S, MW-13D, MW-14S, MW-14D, MW-15S, MW-15D, MW-19S, MW-20S, MW-21S, MW-23S	MW-14S, MW-14D, MW-19S, MW-20S, MW-21S, MW-23S	Phase III	Soils not assessed	Soils not assessed	**Shallow:** Metals and cyanide detected above SWPC. VOCs and PAHs detected **Deep:** Metals detected above SWPC. VOCs and PAHs detected	**Shallow:** Tar globules / staining in MW-20S. Metals detected. **Deep:** VOCs, PAHs and metals detected in MW-14D. Metals detected.	Hockanum River is located upgradient on-site and approximately 400 feet to the west.	Phase II (off-site) 1994 Phase III Investigation (2017)	Additional Phase III ESA investigation is proposed to assess groundwater conditions at St. Joseph's Church property and to the west of the site and to assess the seasonality of groundwater conditions

NOTES:
MGP=- manufactured gas plant
VOC = Volatile Organic Compound
BTEX- Benzene, toluene, ethyl benzene and xylenes
ETPH- Extractable Total Petroleum Hydrocarbons
PAH = Polycyclic Aromatic Hydrocarbon
TPH = Total Petroleum Hydrocarbons
PCBs= Polychlorinated Biphenyls
SWPC- Surface Water Protection Criteria
Res DEC- Residential Direct Esposure Criteria
I/C DEC - Industrial Commercial Direct Exposure Criteria

CSM = Conceptual site model, described by the Connecticut Department of Environmental Protection as "a representation of an environmental system that is used as a tool for understanding and for explaining to others the basis and rationale for site investigation and the conclusions drawn about the environmental conditions at a site. A CSM describes, explains, and provides and understanding of the nature and distribution of contaminants necessary to evaluate potential risks to human health and the environment. The CSM is an iterative approach to site characterization. The number of iterations and quantity and quality of information is a function of the complexity of site conditions and data quality objectives". This interim CSM is subject to change.

AOC = Area of concern, defined by the Connecticut Department of Environmental Protection as "locations or areas at a site where hazardous waste and or hazardous substances (including petroleum products) have been used, stored, treated, handled, disposed, spilled, and/or released to the environment".

Tighe&Bond

APPENDIX C

Low-Flow Data Sheet

Project Name: Rockwall MW
Project Number:
Static Depth to Water (ft): 9.39
Depth to Bottom (ft): 44.87
Screen interval: 10
Point of intake: 45'

Well: MW-06BR
Date: 11/10/17
Sample time: 9:25
Sampler: TJL
Purged (gal): ~2.5 gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
7:55	4.06	9.42	7.60	14.9	54.58	1.76	-397.8	450.4
7:40	4.06	9.42	7.47	14.4	50.19	1.13	-224.1	477.9
7:45	4.06	9.42	7.52	14.7	43.37	1.22	-164.1	502.3
7:50	4.06	9.42	7.27	15.0	38.21	2.74	-79.1	534.8
7:55	4.06	9.42	7.26	14.5	31.02	2.95	-72.4	546.3
8:00	4.06	9.42	7.25	14.6	26.63	3.04	-65.3	544.3
9:05	4.06	9.42	7.25	13.9	21.75	3.28	-63.3	550.4
9:10	4.06	9.42	7.24	14.3	17.04	3.29	-54.1	550.3
9:15	4.06	9.42	7.24	13.9	12.74	3.44	-51.5	550.3
9:20	4.06	9.42	7.24	14.0	7.31	3.39	-54.1	550.3

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 acid
Pump: Bladder / Peristalic / Grunfos / Other-

Color:
Odor:
Sheen:
Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rolling Mill
Project Number:
Static Depth to Water (ft): 14.05 -TOC
Depth to Bottom (ft): ~ 101'
Screen interval: 10'
Point of intake: 99'

Well: MW-38B2
Date: 11/9/17
Sample time: ~~12:55~~ 1300
Sampler: BBL
Purged (gal): ~4 gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
11:30	4.21	19.91	11.61	12.6	6.15	5.55	-163.2	744
11:35	4.21	19.57	11.61	12.8	4.70	5.34	-166.2	741
11:40	4.21	20.03	11.62	12.6	7.34	5.17	-164.9	742
11:45	4.21	20.69	11.62	12.6	4.46	5.12	-166.8	739
11:50	4.21	21.20	11.61	12.7	1.08	4.93	-173.8	733
11:55	4.21	21.45	11.61	12.7	0.64	4.94	-171.2	731
12:00	4.21	21.91	11.61	12.5	1.65	4.93	-174.5	730
12:05	4.21	22.47	11.61	12.6	5.00	4.96	-172.4	726
12:10	4.21	22.85	11.60	12.7	1.61	5.04	-172.0	722
12:15	4.21	23.30	11.60	12.7	0.70	4.94	-174.9	719
12:20	4.21	23.69	11.60	12.7	0.00	4.96	-175.9	722
12:25	4.21	23.99	11.60	12.7	0.00	5.01	-173.6	721
12:30	4.21	24.31	11.60	12.7	0.00	4.93	-172.9	719
12:35	4.21	24.71	11.60	12.6	0.00	4.93	-172.4	719
12:40	3.24	24.96	11.63	12.6	0.00	4.79	-170.4	715
12:45	2.92	24.97	11.61	12.5	0.00	4.79	-169.5	715
12:50	2.85	24.97	11.61	12.3	0.00	4.67	-169.1	714

Sampled 1300

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCl voas 3 1L unpres Ambers ___ HNO3 Plastic 1 Other 1 NaOH
Pump: Bladder / Peristalic / Grunfos / Other-

2316

Color: clear
Odor: None
Sheen: None

Turbidity: 0.00
Well Condition: good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 30.56
Depth to Bottom (ft): 53.54
Screen interval: 10'
Point of intake: 75'

Well: MW-47
Date: 11/9/17
Sample time: 0910
Sampler: BGC
Purged (gal): 2.5

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
0900	3.4	30.90	10.33	10.5	101.0	0.84	-509.2	367.5
0905	3.4	30.90	10.33	11.1	110.2	0.21	-546.1	279.4
0910	3.4	30.90	10.32	11.3	113.3	0.21	-571.8	283.9
0915	3.4	30.90	10.34	11.3	125.2	0.21	-610.4	286.3
0920	3.4	30.90	10.24	11.3	134.6	0.15	-599.7	290.3
0925	3.4	30.90	10.25	11.1	104.1*	0.13	-536.7	290.3
0930	3.4	30.90	9.90	11.7	120.9	0.11	-536.0	327.4
0935	3.4	30.90	9.47	11.6	104.0	0.09	-544.7	384.3
0940	3.4	30.90	9.11	11.8	96.77	0.10	-547.3	434.0
0945	3.4	30.90	8.94	11.7	94.65	0.09	-570.6	469.3
0950	3.4	30.90	8.91	11.7	104.1	0.09	-473.7	488.9
0955	3.4	30.90	8.64	11.8	114.5	0.09	-417.3	532.4
0900	3.4	30.90	8.60	11.9	104.3	0.07	-379.5	538.9
0905	3.4	30.90	8.61	11.8	92.70	0.07	-376.4	540.2

SAMPLED 0910

Analysis: VOCs / SVOCs / Metals / ETPH / Other-
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other: NAOH
Pump: Bladder / Peristalic / Grunfos / Other-

* calibrated turbidity meter @ 0925

Color: cloudy white (milky)
Odor: None
Sheen: None

Turbidity:
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MW
Project Number:
Static Depth to Water (ft): 7.05
Depth to Bottom (ft): 16.96
Screen interval: 10'
Point of intake: 14'

Well: MW-95R
Date: 11/10/17
Sample time: 10:20
Sampler: BJR
Purged (gal): ~2.5 gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
910	4.04	7.26	6.50	14.2	239.9	0.18	-263.8	294.5
915	4.04	7.26	6.40	14.3	228.4	0.09	-245.6	294.9
920	4.04	7.26	6.35	14.6	231.3	0.06	-257.4	294.9
925	4.04	7.26	6.33	14.5	144.3	0.03	-274.1	294.9
930	4.04	7.26	6.31	14.4	347.7	0.04	-243.1	295.1
935	4.04	7.26	6.32	14.4	144.9	0.03	-291.8	293.7
940	4.04	7.26	6.31	14.4	167.5	0.05	-274.4	294.5
945	4.04	7.26	6.29	14.5	90.45	0.07	-254.3	294.5
950	4.04	7.26	6.30	14.7	71.35	0.10	-244.3	295.1
955	4.04	7.26	6.29	14.3	67.16	0.04	-244.4	294.5

Sampled 10:20

Analysis: VOCs / SVOCs / Metals / ETPH / Other- 3 TCN
Sample Containers: HCl voas ___ 1L unpres Ambers___ HNO3 Plastic 1 Other 1 NaOH
Pump: Bladder / Peristalic / Grunfos / Other-

Color: _____ Turbidity: _____
Odor: _____ Well Condition: _____
Sheen: _____ Repairs: _____

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 23.02
Depth to Bottom (ft):
Screen interval: Bottom 10'
Point of intake: ~ 96'

Well: MW-108R
Date: 11/9/17
Sample time: 0951
Sampler: DDC
Purged (gal): ~2.5

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. ~~(mS/cm)~~ (<3%)
0855		23.03	11.58	9.0	87.88	9.62	-31.6	1.178
0900		23.03	11.74	8.8	95.64	8.41	-52.1	1.343
0905		23.03	12.09	8.4	110.3	8.29	-69.4	1.621
0910		23.03	12.29	7.9	116.9	8.14	-89.9	1.796
0915		23.03	12.31	9.6	100.6	6.13	-85.3	1.836
0920		23.03	12.33	11.8	89.42	5.06	-86.5	1.886
0925		23.03	12.35	12.9	72.75	4.07	-87.9	1.924
0930		23.03	12.30	12.9	71.46	3.71	-87.7	1.966
0935		23.03	12.28	12.9	70.94	3.54	-87.4	1.998
0940		23.03	12.26	12.9	70.03	3.31	-87.1	2.011
0945		23.03	12.24	12.9	68.42	3.16	-86.4	1.994
0950		23.03	12.22	13.0	63.35	3.03	-85.7	1968
0951	Sampled							

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1NaOH 250mL
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity:
Well Condition: Good - New
Repairs: N/A

1105 - Collected EQ-Blank

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 12.09
Depth to Bottom (ft):
Screen interval: Bottom 10'
Point of intake: ~18'

Well: MW-145
Date: 11/9/17
Sample time: 1501
Sampler: DJC
Purged (gal): 3

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
1415	250	12.12	6.23	16.7	199.6	2.71	-23.0	0.363
1420			6.18	16.7	141.7	2.70	-23.0	0.374
1425			6.10	16.7	93.09	2.70	-23.0	0.385
1430			6.06	16.7	60.41	2.95	-23.0	0.464
1435			6.07	16.6	31.19	3.02	-23.0	0.512
1440			6.05	16.5	28.46	3.61	22.4	0.556
1445			6.03	16.5	20.31	3.94	-22.4	0.591
1450			6.02	16.5	15.65	4.29	-22.0	0.624
1455			6.01	16.5	11.08	4.34	-21.4	0.647
1500			5.97	16.5	9.77	4.37	-20.1	0.692
1501	Sampled							

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH 250 mL
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity: Low
Well Condition: Good
Repairs: - Needs New Bolts

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 11.94
Depth to Bottom (ft): ~75
Screen interval: Bottom 10'
Point of intake: ~70'

Well: MW-14D
Date: 11/9/17
Sample time: 1641
Sampler: DJC
Purged (gal): 2

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
1610	200	11.97	6.47	13.2	441.4	6.50	-31.8	0.343
1615		11.97	6.82	13.2	557.8	5.25	-41.0	0.352
1620		11.97	7.01	13.2	273.1	4.87	-56.3	0.368
1625		11.97	7.17	13.1	131.6	4.72	-69.1	0.375
1630		11.97	7.21	13.0	79.91	4.61	-74.4	0.387
1635		11.97	7.26	12.9	72.43	4.52	-78.2	0.393
1640	↓	11.97	7.31	12.7	73.14	4.43	-81.3	0.401
1641	Sampled							

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH 250mL
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity: Low
Well Condition: Good
Repairs: - Needs New bolts

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 12.17
Depth to Bottom (ft): 20.73
Screen interval: 10'
Point of intake: 16'

Well: MW-165
Date: 11/10/17
Sample time: 1300
Sampler: RSC
Purged (gal): ~2 gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
1225	4.11	12.18	5.97	13.1	1.60	2.30	3.6	331.2
1230	4.11	12.18	5.93	13.2	1.41	1.98	-10.2	327.4
1235	4.11	12.18	5.93	13.3	0.16	2.02	-12.4	329.3
1240	4.11	12.18	5.95	13.4	0.73	1.95	-17.2	328.9
1245	4.11	12.18	5.94	13.3	0.00	1.92	-23.6	329.5
1250	4.11	12.18	5.95	13.4	0.00	2.04	-22.3	331.6
1255	4.11	12.18	5.95	13.5	0.05	2.05	-24.4	330.9

Sample 1300

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NoVH
Pump: Bladder / Peristaltic / Grunfos / Other-

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 11.37
Depth to Bottom (ft): 16.75
Screen interval: 10'
Point of intake: 14'

Well: MW-175
Date: 11/10/17
Sample time: 1125
Sampler: BPL
Purged (gal): ~2 gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
1055	4.10	11.40	6.23	15.6	13.01	7.30	-73.4	157.7
1100	4.10	11.40	6.22	15.8	8.50	6.07	-72.5	170.6
1105	4.10	11.40	6.21	15.9	5.24	6.04	-19.1	175.2
1110	4.10	11.40	6.20	16.2	2.91	5.92	-10.9	173.3
1115	4.10	11.40	6.19	16.0	2.27	5.96	-5.4	178.4
1120	4.10	11.40	6.14	15.9	1.58	6.04	-3.1	190.9

Low-Flow Data Sheet

Project Name: Rocky Hill MGP
Project Number:
Static Depth to Water (ft): 20.62
Depth to Bottom (ft): 85.21
Screen interval: 10'
Point of intake: 80'

Well: MW-18D
Date: 11/9/17
Sample time: 10:35
Sampler: BPC
Purged (gal): 2 Gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
10:00	4.27	20.63	9.43	11.5	111.5	0.29	-141.4	311.0
10:05	4.27	20.63	9.42	11.6	114.1	0.16	-161.3	312.7
10:10	4.27	20.64	9.40	11.4	113.6	0.10	-146.1	315.5
10:15	4.27	20.65	9.39	11.7	164.7	0.07	-147.2	314.7
10:20	4.27	20.65	9.37	11.5	107.3	0.09	-214.8	322.0
10:25	4.27	20.65	9.35	11.4	101.5	0.06	-217.4	325.7
10:30	4.27	20.65	9.33	11.4	104.3	0.06	-218.4	324.3

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCL voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH
Pump: Bladder / Peristaltic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity: 107.5
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 14.54
Depth to Bottom (ft): 33.50
Screen interval: 10'
Point of intake: 30.00

Well: MW-195
Date: 11/4/17
Sample time: 14:55
Sampler: BPC
Purged (gal): ~2.5gal

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
14:20	4.02	18.54	7.19	13.9	14.20	6.64	2.6	260.7
14:25	4.02	18.54	6.85	13.4	4.63	6.36	6.7	259.3
14:30	4.02	14.54	6.61	14.0	9.21	6.26	11.4	257.5
14:35	4.02	14.54	6.~~77~~ 55	13.9	6.37	6.14	12.8	257.2
14:40	4.02	14.54	6.35	13.9	5.90	6.11	14.1	258.8
14:45	4.02	14.54	6.25	13.4	3.51	6.04	14.4	260.5
14:50	4.02	14.54	6.23	13.4	3.39	6.01	13.5	261.4

Duplicate collected @ 14:55

Analysis: VOCs / SVOCs / Metals / ETPH / Other-
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other NaOH + MW-Dup
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity: 3.39
Well Condition: Good
Repairs: None

BPC 11/6/17

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 21.67
Depth to Bottom (ft): 29.20
Screen interval: 10'
Point of intake: 26.00

Well: MW-01S
Date: 9/19/19
Sample time:
Sampler: BDL
Purged (gal):

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
16:00	4.10	21.69	6.19	14.2	41.84	7.70	23.3	760
16:05	4.10	21.69	6.19	14.0	33.06	6.23	24.5	765
16:10	4.10	21.69	6.18	14.1	20.66	6.24	27.6	764
16:15	4.10	21.69	6.19	14.0	8.61	6.30	29.5	763
16:20	4.10	21.69	6.17	13.9	4.83	6.19	32.2	764

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: None
Sheen: None

Turbidity: 4.83
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number:
Static Depth to Water (ft): 34.30
Depth to Bottom (ft):
Screen interval: Bottom 10'
Point of intake: ~36'

Well: MW-235
Date: 11/9/17
Sample time: 1236
Sampler: DJC
Purged (gal): 1.5

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min)	DTW (ft) (<0.3 ft)	pH (+/- 0.1)	Temp. (°C) (<3%)	Turbidity (NTU) (< 5 NTU or <10%)	DO (mg/L) (<10%) or below 0.5	ORP (mV) (+/- 10 mV)	Specific Cond. (mS/cm) (<3%)
1155	200	34.56	8.54	14.5	878.1	2.62	-47.2	0.472
1200		34.62	8.31	14.2	759.3	2.41	-49.0	0.474
1205		34.68	8.04	14.4	692.6	3.01	-52.3	0.467
1210		34.71	7.89	14.3	284.9	3.45	-47.8	0.453
1215		34.72	7.58	13.9	217.1	4.14	-36.6	0.433
1220		34.73	7.51	13.9	194.6	4.19	-36.6	0.431
1225		34.74	7.48	13.9	183.9	4.21	-36.4	0.429
1230		34.75	7.46	13.9	166.3	4.23	-36.3	0.428
1235		34.75	7.38	14.0	154.1	4.30	-36.1	0.432
1236	Sample							

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH 250 mL
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Red/Brownish
Odor: None
Sheen: None

Turbidity:
Well Condition: Good - New
Repairs: N/A

Tighe&Bond

APPENDIX D

PHOENIX
Environmental Laboratories, Inc.

Friday, September 29, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BY98231 - BY98233

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

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

Analysis Report

September 29, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/08/17	13:30
Location Code:	TIGHE-DAS	Received by:	SW	09/08/17	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98231
Phoenix ID: BY98231

Project ID:
Client ID: SB-09A(5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Arsenic	3.92	0.73	mg/Kg	1	09/09/17	MA	SW6010C
Barium	53.5	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Beryllium	0.37	0.29	mg/Kg	1	09/09/17	MA	SW6010C
Cadmium	0.39	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Chromium	13.6	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Copper	20.3	0.36	mg/kg	1	09/09/17	MA	SW6010C
Mercury	0.56	0.03	mg/Kg	1	09/12/17	RS	SW7471B
Nickel	13.8	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Lead	41.4	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	09/09/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/09/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/11/17	MA	SW6010C
SPLP Barium	0.027	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/11/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/11/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Mercury	0.0005	0.0005	mg/L	1	09/11/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Lead	0.021	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/11/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/11/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/11/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/11/17	MA	SW6010C
SPLP Zinc	0.026	0.010	mg/L	1	09/11/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	09/09/17	MA	SW6010C

Ver 2

Project ID:
Client ID: SB-09A(5-7)

Phoenix I.D.: BY98231

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/11/17	W/W	SW3005A
Vanadium	19.9	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Zinc	77.2	0.36	mg/Kg	1	09/09/17	MA	SW6010C
Percent Solid	89		%		09/08/17	Q	SW846-%Solid
SPLP Cyanide	0.03	0.01	mg/L	1	09/27/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	6.28	0.51	mg/Kg	1	09/12/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/08/17	JJ/V	SW3545A
Extraction of CT ETPH	Completed				09/08/17	AC/V	SW3545A
Mercury Digestion	Completed				09/12/17	W/W	SW7471B
SPLP Extraction Cyanide (Total)	Completed				09/22/17	W	SW1312
SPLP Digestion Mercury	Completed				09/11/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/08/17	W	SW1312
Total Metals Digest	Completed				09/08/17	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	760	280	mg/Kg	5	09/11/17	KCA	CTETPH 8015D
Identification	**		mg/Kg	5	09/11/17	KCA	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	105		%	5	09/11/17	KCA	50 - 150 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2-Methylnaphthalene	740	260	ug/Kg	1	09/09/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	09/09/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D

Ver 2

Project ID:
Phoenix I.D.: BY98231
Client ID: SB-09A(5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acenaphthene	390	260	ug/Kg	1	09/09/17	DD	SW8270D
Acenaphthylene	2000	260	ug/Kg	1	09/09/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
Anthracene	2900	260	ug/Kg	1	09/09/17	DD	SW8270D
Benz(a)anthracene	12000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(a)pyrene	13000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Benzo(b)fluoranthene	9100	2600	ug/Kg	10	09/14/17	DD	SW8270D
Benzo(ghi)perylene	6200	260	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(k)fluoranthene	4600	260	ug/Kg	1	09/09/17	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	09/09/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Carbazole	1000	370	ug/Kg	1	09/09/17	DD	SW8270D
Chrysene	11000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Dibenz(a,h)anthracene	2100	260	ug/Kg	1	09/09/17	DD	SW8270D
Dibenzofuran	1200	260	ug/Kg	1	09/09/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Di-n-butylphthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Fluoranthene	16000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Fluorene	1500	260	ug/Kg	1	09/09/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	6300	260	ug/Kg	1	09/09/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Naphthalene	880	260	ug/Kg	1	09/09/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/09/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/09/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
Phenanthrene	13000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	09/09/17	DD	SW8270D
Pyrene	17000	2600	ug/Kg	10	09/14/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	09/09/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	51		%	1	09/09/17	DD	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	09/09/17	DD	30 - 130 %
% 2-Fluorophenol	33		%	1	09/09/17	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	09/09/17	DD	30 - 130 %

Project ID: Phoenix I.D.: BY98231

Client ID: SB-09A(5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Phenol-d5	49		%	1	09/09/17	DD	30 - 130 %
% Terphenyl-d14	65		%	1	09/09/17	DD	30 - 130 %

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

Comments:

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 C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

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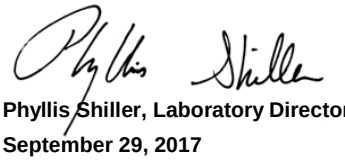

Phyllis Shiller, Laboratory Director
September 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 29, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/08/17	13:35
Location Code:	TIGHE-DAS	Received by:	SW	09/08/17	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98231
Phoenix ID: BY98232

Project ID:
Client ID: SB-09A(13-14)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		09/08/17	Q	SW846-%Solid
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	09/10/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	09/10/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,1-Dichloroethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,1-Dichloroethene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,1-Dichloropropene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	53	ug/Kg	50	09/10/17	JLI	SW8260C
1,2-Dibromoethane	ND	27	ug/Kg	50	09/10/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	50	09/10/17	JLI	SW8260C
1,2-Dichloropropane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,3-Dichloropropane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
2,2-Dichloropropane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
2-Chlorotoluene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
2-Hexanone	ND	1300	ug/Kg	50	09/10/17	JLI	SW8260C
2-Isopropyltoluene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
4-Chlorotoluene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C

Project ID: Phoenix I.D.: BY98232

Client ID: SB-09A(13-14)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	09/10/17	JLI	SW8260C
Acetone	ND	13000	ug/Kg	50	09/10/17	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	09/10/17	JLI	SW8260C
Benzene	ND	200	ug/Kg	50	09/10/17	JLI	SW8260C
Bromobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Bromochloromethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Bromodichloromethane	ND	210	ug/Kg	50	09/10/17	JLI	SW8260C
Bromoform	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Bromomethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Carbon Disulfide	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Carbon tetrachloride	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Chlorobenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Chloroethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Chloroform	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Chloromethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	09/10/17	JLI	SW8260C
Dibromomethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Dichlorodifluoromethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Ethylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Hexachlorobutadiene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Isopropylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
m&p-Xylene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	1600	ug/Kg	50	09/10/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	530	ug/Kg	50	09/10/17	JLI	SW8260C
Methylene chloride	ND	530	ug/Kg	50	09/10/17	JLI	SW8260C
Naphthalene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
n-Butylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
n-Propylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
o-Xylene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
p-Isopropyltoluene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
sec-Butylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Styrene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
tert-Butylbenzene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Tetrachloroethene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	530	ug/Kg	50	09/10/17	JLI	SW8260C
Toluene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Total Xylenes	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	530	ug/Kg	50	09/10/17	JLI	SW8260C
Trichloroethene	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Trichlorofluoromethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
Vinyl chloride	ND	270	ug/Kg	50	09/10/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	50	09/10/17	JLI	70 - 130 %
% Bromofluorobenzene	102		%	50	09/10/17	JLI	70 - 130 %

Ver 2

Project ID: Phoenix I.D.: BY98232

Client ID: SB-09A(13-14)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	101		%	50	09/10/17	JLI	70 - 130 %
% Toluene-d8	97		%	50	09/10/17	JLI	70 - 130 %
Field Extraction	Completed				09/08/17		SW5035A

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

Comments:

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of non-target compounds.

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
September 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 29, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/08/17	15:00
Location Code:	TIGHE-DAS	Received by:	SW	09/08/17	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98231
Phoenix ID: BY98233

Project ID:
Client ID: SB-24 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		09/08/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				09/08/17	JJ/V	SW3545A
SPLP Extraction for Organics	Completed				09/22/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/25/17	P/D	SW3510C/SW3520C
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Acenaphthene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Acenaphthylene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Anthracene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Benz(a)anthracene	590	380	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(a)pyrene	540	380	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(b)fluoranthene	1100	380	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(ghi)perylene	980	380	ug/Kg	1	09/09/17	DD	SW8270D
Benzo(k)fluoranthene	890	380	ug/Kg	1	09/09/17	DD	SW8270D
Chrysene	1100	380	ug/Kg	1	09/09/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Fluoranthene	820	380	ug/Kg	1	09/09/17	DD	SW8270D
Fluorene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	850	380	ug/Kg	1	09/09/17	DD	SW8270D
Naphthalene	ND	380	ug/Kg	1	09/09/17	DD	SW8270D
Phenanthrene	630	380	ug/Kg	1	09/09/17	DD	SW8270D
Pyrene	1200	380	ug/Kg	1	09/09/17	DD	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	38		%	1	09/09/17	DD	30 - 130 %
% Nitrobenzene-d5	42		%	1	09/09/17	DD	30 - 130 %
% Terphenyl-d14	37		%	1	09/09/17	DD	30 - 130 %

Project ID:
Phoenix I.D.: BY98233

Client ID: SB-24 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Acenaphthene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Acenaphthylene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Anthracene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	09/26/17	G	SW8270D (SIM)
Fluoranthene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	09/26/17	G	SW8270D (SIM)
Pyrene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	64		%	1	09/26/17	G	30 - 130 %
% Nitrobenzene-d5	60		%	1	09/26/17	G	30 - 130 %
% Terphenyl-d14	83		%	1	09/26/17	G	30 - 130 %

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

Comments:

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

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Phyllis Shiller, Laboratory Director
September 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

September 29, 2017

QA/QC Data

SDG I.D.: GBY98231

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 400838 (mg/L), QC Sample No: BY97708 (BY98231)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	105			96.9			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 400840 (mg/L), QC Sample No: BY97717 (BY98231)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	101			104			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	101			105			75 - 125	20	
Barium	BRL	0.010	0.053	0.052	1.90	106			104			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			105			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	100			102			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	99.2			102			75 - 125	20	
Copper	BRL	0.010	0.021	0.021	NC	102			106			75 - 125	20	
Lead	BRL	0.010	0.025	0.025	NC	102			105			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	105			107			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	101			104			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	97.4			100			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	100			103			75 - 125	20	
Vanadium	BRL	0.010	0.013	0.013	NC	99.3			104			75 - 125	20	
Zinc	BRL	0.010	0.019	0.022	NC	101			104			75 - 125	20	
QA/QC Batch 400976 (mg/kg), QC Sample No: BY98231 (BY98231)														
Mercury - Soil	BRL	0.03	0.56	0.64	13.3	98.0	95.9	2.2	61.4			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%.														
QA/QC Batch 400794 (mg/kg), QC Sample No: BY98256 (BY98231)														
ICP Metals - Soil														
Antimony	BRL	3.3	<2.0	<3.4	NC	97.9			93.5			75 - 125	30	
Arsenic	BRL	0.66	2.24	2.75	NC	96.0			92.9			75 - 125	30	
Barium	BRL	0.33	71.2	68.0	4.60	96.6			106			75 - 125	30	
Beryllium	BRL	0.26	0.35	0.40	NC	93.7			90.6			75 - 125	30	
Cadmium	BRL	0.33	<0.40	<0.34	NC	96.2			96.9			75 - 125	30	
Chromium	BRL	0.33	20.0	20.3	1.50	97.5			98.1			75 - 125	30	
Copper	BRL	0.33	20.4 *	36.3	56.1	98.1			117			75 - 125	30	r
Lead	BRL	0.33	24.8	24.8	0	94.9			98.6			75 - 125	30	
Nickel	BRL	0.33	16.9	22.4	28.0	98.8			116			75 - 125	30	
Selenium	BRL	1.3	<1.6	<1.4	NC	92.3			81.7			75 - 125	30	
Silver	BRL	0.33	<0.40	<0.34	NC	96.4			97.0			75 - 125	30	
Thallium	BRL	3.0	<1.6	<3.1	NC	103			102			75 - 125	30	
Vanadium	BRL	0.33	25.6	30.9	18.8	104			102			75 - 125	30	
Zinc	BRL	0.33	52.2	57.1	9.00	99.6			107			75 - 125	30	

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

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QA/QC Report

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QA/QC Data

SDG I.D.: GBY98231

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 400925 (mg/Kg), QC Sample No: BY97952 50X (BY98231)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.48	<0.48	NC	92.9			97.5			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 402854 (mg/L), QC Sample No: BZ06069 (BY98231)													
Total Cyanide	BRL	0.01	<0.010	<0.01	NC	98.8			104			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

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QA/QC Data

SDG I.D.: GBY98231

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 400902 (ug/kg), QC Sample No: BY97952 (BY98232 (50X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	129	121	6.4	124	119	4.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	116	121	4.2	111	113	1.8	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	111	114	2.7	110	111	0.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	115	115	0.0	107	113	5.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	94	101	7.2	93	94	1.1	70 - 130	30	
1,1-Dichloroethene	ND	5.0	120	124	3.3	120	115	4.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	121	123	1.6	121	121	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	120	126	4.9	107	95	11.9	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	106	110	3.7	106	109	2.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	119	127	6.5	107	92	15.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	113	116	2.6	111	110	0.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	123	125	1.6	119	120	0.8	70 - 130	30	
1,2-Dibromoethane	ND	5.0	120	121	0.8	116	114	1.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	111	121	8.6	110	106	3.7	70 - 130	30	
1,2-Dichloroethane	ND	5.0	114	117	2.6	104	112	7.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0	114	112	1.8	112	112	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	112	118	5.2	113	108	4.5	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	115	122	5.9	111	108	2.7	70 - 130	30	
1,3-Dichloropropane	ND	5.0	116	115	0.9	112	107	4.6	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	116	114	1.7	107	105	1.9	70 - 130	30	
2,2-Dichloropropane	ND	5.0	135	136	0.7	118	119	0.8	70 - 130	30	I
2-Chlorotoluene	ND	5.0	115	119	3.4	112	111	0.9	70 - 130	30	
2-Hexanone	ND	25	76	79	3.9	79	78	1.3	70 - 130	30	
2-Isopropyltoluene	ND	5.0	99	103	4.0	95	92	3.2	70 - 130	30	
4-Chlorotoluene	ND	5.0	115	119	3.4	113	112	0.9	70 - 130	30	
4-Methyl-2-pentanone	ND	25	84	82	2.4	82	82	0.0	70 - 130	30	
Acetone	ND	10	77	77	0.0	88	80	9.5	70 - 130	30	
Acrylonitrile	ND	5.0	71	71	0.0	63	77	20.0	70 - 130	30	m
Benzene	ND	1.0	117	118	0.9	116	116	0.0	70 - 130	30	
Bromobenzene	ND	5.0	112	119	6.1	110	107	2.8	70 - 130	30	
Bromochloromethane	ND	5.0	118	123	4.1	106	109	2.8	70 - 130	30	
Bromodichloromethane	ND	5.0	119	123	3.3	114	116	1.7	70 - 130	30	
Bromoform	ND	5.0	134	130	3.0	122	120	1.7	70 - 130	30	I
Bromomethane	ND	5.0	104	110	5.6	109	106	2.8	70 - 130	30	
Carbon Disulfide	ND	5.0	117	118	0.9	111	107	3.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	130	133	2.3	123	122	0.8	70 - 130	30	I
Chlorobenzene	ND	5.0	114	114	0.0	114	112	1.8	70 - 130	30	
Chloroethane	ND	5.0	91	91	0.0	87	87	0.0	70 - 130	30	
Chloroform	ND	5.0	114	117	2.6	110	104	5.6	70 - 130	30	
Chloromethane	ND	5.0	92	96	4.3	86	86	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	114	122	6.8	114	109	4.5	70 - 130	30	

QA/QC Data

SDG I.D.: GBY98231

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	116	118	1.7	110	112	1.8	70 - 130	30	
Dibromochloromethane	ND	3.0	134	131	2.3	127	121	4.8	70 - 130	30	I
Dibromomethane	ND	5.0	116	117	0.9	111	108	2.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	120	123	2.5	118	116	1.7	70 - 130	30	
Ethylbenzene	ND	1.0	117	113	3.5	118	115	2.6	70 - 130	30	
Hexachlorobutadiene	ND	5.0	127	135	6.1	110	97	12.6	70 - 130	30	I
Isopropylbenzene	ND	1.0	111	112	0.9	117	115	1.7	70 - 130	30	
m&p-Xylene	ND	2.0	109	119	8.8	117	110	6.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	74	77	4.0	73	70	4.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	116	118	1.7	106	105	0.9	70 - 130	30	
Methylene chloride	ND	5.0	113	115	1.8	113	103	9.3	70 - 130	30	
Naphthalene	ND	5.0	117	121	3.4	116	106	9.0	70 - 130	30	
n-Butylbenzene	ND	1.0	116	125	7.5	115	108	6.3	70 - 130	30	
n-Propylbenzene	ND	1.0	114	121	6.0	117	111	5.3	70 - 130	30	
o-Xylene	ND	2.0	116	122	5.0	118	113	4.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	119	119	0.0	110	109	0.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	120	127	5.7	121	117	3.4	70 - 130	30	
Styrene	ND	5.0	118	122	3.3	117	109	7.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	116	121	4.2	112	114	1.8	70 - 130	30	
Tetrachloroethene	ND	5.0	122	126	3.2	120	123	2.5	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	84	84	0.0	80	78	2.5	70 - 130	30	
Toluene	ND	1.0	117	118	0.9	112	112	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	119	121	1.7	111	113	1.8	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	120	122	1.7	106	113	6.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	100	105	4.9	92	93	1.1	70 - 130	30	
Trichloroethene	ND	5.0	119	123	3.3	122	121	0.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	104	107	2.8	93	96	3.2	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	110	112	1.8	105	100	4.9	70 - 130	30	
Vinyl chloride	ND	5.0	103	104	1.0	97	98	1.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	107	%	100	103	3.0	101	106	4.8	70 - 130	30	
% Bromofluorobenzene	98	%	101	101	0.0	101	103	2.0	70 - 130	30	
% Dibromofluoromethane	102	%	98	99	1.0	97	95	2.1	70 - 130	30	
% Toluene-d8	97	%	101	100	1.0	96	103	7.0	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 400728 (ug/kg), QC Sample No: BY97956 (BY98231)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	48	62	25.5	55	57	3.6	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	45	59	26.9	47	49	4.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	42	55	26.8	40	42	4.9	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	52	67	25.2	63	62	1.6	30 - 130	30	
1,3-Dichlorobenzene	ND	230	40	52	26.1	37	38	2.7	30 - 130	30	
1,4-Dichlorobenzene	ND	230	42	55	26.8	39	42	7.4	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	54	73	29.9	67	66	1.5	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	52	71	30.9	66	66	0.0	30 - 130	30	r
2,4-Dichlorophenol	ND	130	52	68	26.7	60	63	4.9	30 - 130	30	
2,4-Dimethylphenol	ND	230	53	69	26.2	62	63	1.6	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	64	52	20.7	30 - 130	30	I
2,4-Dinitrotoluene	ND	130	56	75	29.0	66	66	0.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	55	72	26.8	65	64	1.6	30 - 130	30	
2-Chloronaphthalene	ND	230	51	66	25.6	60	61	1.7	30 - 130	30	
2-Chlorophenol	ND	230	46	61	28.0	46	48	4.3	30 - 130	30	

QA/QC Data

SDG I.D.: GBY98231

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylnaphthalene	ND	230	47	61	25.9	52	55	5.6	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	52	69	28.1	56	58	3.5	30 - 130	30	
2-Nitroaniline	ND	330	72	98	30.6	85	84	1.2	30 - 130	30	r
2-Nitrophenol	ND	230	48	64	28.6	49	50	2.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	51	67	27.1	58	59	1.7	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	68	88	25.6	64	55	15.1	30 - 130	30	
3-Nitroaniline	ND	330	61	80	27.0	72	70	2.8	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	10	NC	78	62	22.9	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	51	69	30.0	64	62	3.2	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	56	73	26.4	66	67	1.5	30 - 130	30	
4-Chloroaniline	ND	230	52	65	22.2	56	57	1.8	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	53	69	26.2	63	63	0.0	30 - 130	30	
4-Nitroaniline	ND	230	55	73	28.1	65	65	0.0	30 - 130	30	
4-Nitrophenol	ND	230	57	77	29.9	71	70	1.4	30 - 130	30	
Acenaphthene	ND	230	56	74	27.7	68	76	11.1	30 - 130	30	
Acenaphthylene	ND	130	51	66	25.6	60	61	1.7	30 - 130	30	
Acetophenone	ND	230	44	59	29.1	43	45	4.5	30 - 130	30	
Aniline	ND	330	41	53	25.5	38	37	2.7	30 - 130	30	
Anthracene	ND	230	55	71	25.4	67	92	31.4	30 - 130	30	r
Benz(a)anthracene	ND	230	55	72	26.8	67	135	67.3	30 - 130	30	m,r
Benzidine	ND	330	29	40	31.9	<10	<10	NC	30 - 130	30	l,m,r
Benzo(a)pyrene	ND	130	52	69	28.1	45	108	82.4	30 - 130	30	r
Benzo(b)fluoranthene	ND	160	55	74	29.5	53	129	83.5	30 - 130	30	r
Benzo(ghi)perylene	ND	230	45	57	23.5	43	84	64.6	30 - 130	30	r
Benzo(k)fluoranthene	ND	230	55	73	28.1	56	95	51.7	30 - 130	30	r
Benzoic Acid	ND	330	<10	<10	NC	15	10	40.0	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	56	75	29.0	64	66	3.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	50	65	26.1	49	52	5.9	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	38	51	29.2	36	42	15.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	40	52	26.1	37	39	5.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	58	77	28.1	72	71	1.4	30 - 130	30	
Carbazole	ND	230	56	74	27.7	71	86	19.1	30 - 130	30	
Chrysene	ND	230	56	74	27.7	72	163	77.4	30 - 130	30	m,r
Dibenz(a,h)anthracene	ND	130	49	63	25.0	52	80	42.4	30 - 130	30	r
Dibenzofuran	ND	230	55	71	25.4	65	72	10.2	30 - 130	30	
Diethyl phthalate	ND	230	54	72	28.6	65	65	0.0	30 - 130	30	
Dimethylphthalate	ND	230	53	71	29.0	63	63	0.0	30 - 130	30	
Di-n-butylphthalate	ND	230	62	82	27.8	64	60	6.5	30 - 130	30	
Di-n-octylphthalate	ND	230	57	76	28.6	63	57	10.0	30 - 130	30	
Fluoranthene	ND	230	55	72	26.8	69	>200	NC	30 - 130	30	m
Fluorene	ND	230	56	71	23.6	68	79	15.0	30 - 130	30	
Hexachlorobenzene	ND	130	53	70	27.6	64	62	3.2	30 - 130	30	
Hexachlorobutadiene	ND	230	44	57	25.7	44	46	4.4	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	46	60	26.4	37	27	31.3	30 - 130	30	m,r
Hexachloroethane	ND	130	40	52	26.1	37	38	2.7	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	47	60	24.3	42	88	70.8	30 - 130	30	r
Isophorone	ND	130	46	59	24.8	46	49	6.3	30 - 130	30	
Naphthalene	ND	230	49	62	23.4	50	54	7.7	30 - 130	30	
Nitrobenzene	ND	130	47	62	27.5	46	48	4.3	30 - 130	30	
N-Nitrosodimethylamine	ND	230	40	53	28.0	36	37	2.7	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	48	63	27.0	46	48	4.3	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	56	75	29.0	66	66	0.0	30 - 130	30	
Pentachloronitrobenzene	ND	230	53	70	27.6	64	62	3.2	30 - 130	30	

QA/QC Data

SDG I.D.: GBY98231

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Pentachlorophenol	ND	230	34	50	38.1	85	69	20.8	30 - 130	30	r
Phenanthrene	ND	130	54	70	25.8	71	>200	NC	30 - 130	30	m
Phenol	ND	230	48	63	27.0	48	51	6.1	30 - 130	30	
Pyrene	ND	230	56	71	23.6	69	191	93.8	30 - 130	30	m,r
Pyridine	ND	230	30	40	28.6	30	29	3.4	30 - 130	30	m
% 2,4,6-Tribromophenol	43	%	54	70	25.8	66	60	9.5	30 - 130	30	
% 2-Fluorobiphenyl	42	%	52	66	23.7	58	55	5.3	30 - 130	30	
% 2-Fluorophenol	28	%	41	53	25.5	37	36	2.7	30 - 130	30	s
% Nitrobenzene-d5	36	%	46	58	23.1	43	43	0.0	30 - 130	30	
% Phenol-d5	34	%	47	61	25.9	47	45	4.3	30 - 130	30	
% Terphenyl-d14	47	%	56	73	26.4	64	58	9.8	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 400775 (ug/kg), QC Sample No: BY98070 (BY98233)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	67	62	7.8	60	59	1.7	30 - 130	30	
Acenaphthene	ND	230	81	73	10.4	72	68	5.7	30 - 130	30	
Acenaphthylene	ND	230	70	63	10.5	63	46	31.2	30 - 130	30	r
Anthracene	ND	230	75	67	11.3	68	66	3.0	30 - 130	30	
Benz(a)anthracene	ND	230	76	67	12.6	67	63	6.2	30 - 130	30	
Benzo(a)pyrene	ND	230	72	55	26.8	65	62	4.7	30 - 130	30	
Benzo(b)fluoranthene	ND	230	84	60	33.3	74	72	2.7	30 - 130	30	r
Benzo(ghi)perylene	ND	230	70	72	2.8	65	62	4.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	85	69	20.8	79	74	6.5	30 - 130	30	
Chrysene	ND	230	75	65	14.3	68	67	1.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	74	76	2.7	68	64	6.1	30 - 130	30	
Fluoranthene	ND	230	75	91	19.3	65	64	1.6	30 - 130	30	
Fluorene	ND	230	81	74	9.0	72	52	32.3	30 - 130	30	r
Indeno(1,2,3-cd)pyrene	ND	230	71	71	0.0	66	61	7.9	30 - 130	30	
Naphthalene	ND	230	68	63	7.6	64	58	9.8	30 - 130	30	
Phenanthrene	ND	230	73	67	8.6	67	64	4.6	30 - 130	30	
Pyrene	ND	230	75	90	18.2	63	62	1.6	30 - 130	30	
% 2-Fluorobiphenyl	71	%	76	69	9.7	65	52	22.2	30 - 130	30	
% Nitrobenzene-d5	63	%	68	57	17.6	61	57	6.8	30 - 130	30	
% Terphenyl-d14	69	%	74	88	17.3	61	60	1.7	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%)

QA/QC Batch 400762 (mg/Kg), QC Sample No: BY98231 (BY98231)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	77	71	8.1				60 - 120	30	
% n-Pentacosane	54	%	63	60	4.9				50 - 150	30	

Comment:

*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.

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 402869 (ug/L), QC Sample No: BZ08120 (BY98233)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	78	69	12.2				30 - 130	20	
Acenaphthene	ND	0.05	80	72	10.5				30 - 130	20	

QA/QC Data

SDG I.D.: GBY98231

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Acenaphthylene	ND	0.04	72	66	8.7				30 - 130	20
Anthracene	ND	0.02	82	80	2.5				30 - 130	20
Benz(a)anthracene	ND	0.03	70	69	1.4				30 - 130	20
Benzo(a)pyrene	ND	0.02	65	65	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.03	69	67	2.9				30 - 130	20
Benzo(ghi)perylene	ND	0.02	50	55	9.5				30 - 130	20
Benzo(k)fluoranthene	ND	0.03	71	70	1.4				30 - 130	20
Chrysene	ND	0.05	73	72	1.4				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	57	63	10.0				30 - 130	20
Fluoranthene	ND	0.04	79	74	6.5				30 - 130	20
Fluorene	ND	0.05	78	73	6.6				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	56	61	8.5				30 - 130	20
Naphthalene	ND	0.05	57	47	19.2				30 - 130	20
Phenanthrene	ND	0.05	76	74	2.7				30 - 130	20
Pyrene	ND	0.02	81	76	6.4				30 - 130	20
% 2-Fluorobiphenyl	37	%	68	59	14.2				30 - 130	20
% Nitrobenzene-d5	30	%	50	46	8.3				30 - 130	20
% Terphenyl-d14	72	%	75	70	6.9				30 - 130	20

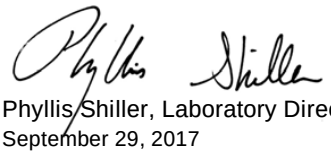
Comment:

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

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.
s = This parameter is outside laboratory Blank Surrogate 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
September 29, 2017

Friday, September 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBY98231 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BY98231	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	2100	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	6300	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	13000	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9100	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	6300	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	11000	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	6200	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	2100	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4600	260	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	9100	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	13000	2600	1000	1000	ug/Kg
BY98231	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	12000	2600	1000	1000	ug/Kg
BY98231	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	760	280	500	500	mg/Kg
BY98232	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	27	7	7	ug/Kg
BY98232	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	53	40	40	ug/Kg
BY98233	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	380	1000	1000	ug/Kg
BY98233	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1100	380	1000	1000	ug/Kg
BY98233	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1100	380	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: SJB-09A(5-7) ***Project Number:***

Laboratory Sample ID(s): BY98231-BY98233 ***Sampling Date(s):*** 9/8/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature: MaTaylor **Position:** Project Manager

Printed Name: Maryam Taylor **Date:** Friday, September 29, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 29, 2017

SDG I.D.: GBY98231

SDG Comments

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

Sample(s) required a dilution for Volatiles due to the presence of target and/or non-target compounds. This resulted in elevated reporting limits that exceed the requested criteria for one or more analytes.

Cyanide Narration

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

Instrument:

LACHAT 09/12/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/12/17

BY98231

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 09/27/17-1 Brian Sheriden, Greg Danielewski, Chemist 09/27/17

BY98231

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 400925 (BY97952)

BY98231

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

Batch 402854 (BZ06069)

BY98231

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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ETPH Narration

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

Instrument:

AU-FID1 09/11/17-1 Jeff Bucko, Chemist 09/11/17

BY98231

The initial calibration (ETPH908I) 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 400762 (BY98231)

BY98231

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.
*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.
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? No.

QC Batch 400976 (Samples: BY98231): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Mercury)

Instrument:

MERLIN 09/11/17 09:28 Rick Schweitzer, Chemist 09/11/17

BY98231

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

MERLIN 09/12/17 09:07 Rick Schweitzer, Chemist 09/12/17

BY98231

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.

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Certification Report

September 29, 2017

SDG I.D.: GBY98231

Mercury Narration

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

QC (Batch Specific):

Batch 400838 (BY97708)

BY98231

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

QC (Site Specific):

Batch 400976 (BY98231)

BY98231

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: Mercury(61.4%)
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 Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

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

QC Batch 400794 (Samples: BY98231): -----

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

Instrument:

ARCOS 09/09/17 12:58 Mike Arsenault, Chemist 09/09/17

BY98231

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

BLUE 09/11/17 06:46 Mike Arsenault, Chemist 09/11/17

BY98231

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Certification Report

September 29, 2017

SDG I.D.: GBY98231

ICP Metals Narration

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

QC (Batch Specific):

Batch 400794 (BY98256)

BY98231

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

Batch 400840 (BY97717)

BY98231

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

SVOA Narration

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

QC Batch 400728 (Samples: BY98231): -----

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

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

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

QC Batch 400775 (Samples: BY98233): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Benzo(b)fluoranthene)

Instrument:

CHEM06 09/14/17-1 Damien Drobinski, Chemist 09/14/17

BY98231

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

Initial Calibration Verification (CHEM06/SPLIT_0831):

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RCP Certification Report

September 29, 2017

SDG I.D.: GBY98231

SVOA Narration

97% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/0914_02-SPLIT_0831):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM19 09/08/17-2 Damien Drobinski, Chemist 09/08/17

BY98233

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/BN_0907):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0908_33-BN_0907):
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.

CHEM29 09/08/17-1 Damien Drobinski, Chemist 09/08/17

BY98231

Initial Calibration Verification (CHEM29/SPLIT_0907):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 33% (20%), Naphthalene 22% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.086 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0908_04-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.057 (0.1), Hexachlorobenzene 0.083 (0.1)
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

September 29, 2017

SDG I.D.: GBY98231

SVOA Narration

QC (Batch Specific):

Batch 400728 (BY97956)

BY98231

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(29%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 2,4,6-Trichlorophenol(30.9%), 2-Nitroaniline(30.6%), Benzidine(31.9%), Pentachlorophenol(38.1%)
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%)

Batch 400775 (BY98070)

BY98233

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: Benzo(b)fluoranthene(33.3%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

Instrument:

CHEM07 09/26/17-1 Damien Drobinski, Chemist 09/26/17

BY98233

Initial Calibration Verification (CHEM07/SIM_0926):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/0926_13-SIM_0926):
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 402869 (BZ08120)

BY98233

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

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

September 29, 2017

SDG I.D.: GBY98231

SVOASIM Narration

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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 400902 (Samples: BY98232): -----

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

Instrument:

CHEM03 09/10/17-1 Jane Li, Chemist 09/10/17

BY98232

Initial Calibration Verification (CHEM03/VT-L0902):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
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 (CHEM03/0910L05-VT-L0902):
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 400902 (BY97952)

BY98232

All LCS recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(135%), Bromoform(134%), Dibromochloromethane(134%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(136%), Carbon tetrachloride(133%), Dibromochloromethane(131%), Hexachlorobutadiene(135%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 4.4C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

CHAIN OF CUSTODY RECORD

Temp 4.4 °C Pg 1 of 1

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:
[ ] Fax #:
[X] Email: LEvilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rockville MGP Site
Report to: Lynn Wiley
Invoice to: Tighe + Bond
Phone #: 860-852-5214
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: RC Date: 9/14/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	(full)	VOC 8260 (5)	SVOC 8270C	RSR Metals (mass + SPLP)	TCN (9012)	CT EPH	PAHs 8270C SIM	SPLP PAHs	Soil VOA Vials [X] methanol [X] H2O	GL Soil container 8oz [ ] oz [ ] As is [ ] HCl [ ] oz	40 ml VOA Vial [ ] As is [ ] H2SO4	GL Amber 1000ml [ ] As is [ ] 500ml [ ] 1000ml	PL As is [ ] 250ml [ ] 500ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (withio)
98231	SB-09A(5-7)	Soil(S)	9/8/17	1330		X	X	X	X				3	X								
98232	SB-09A(13-14)	S	9/8/17	1335	X								X	1								
98233	SB-24 (2-4)	S	9/14/17	15:10						X	X	X		1								

Relinquished by:	Accepted by:	Date:	Time:
RC	TFD WWM	9/18/17	16:36

Comments, Special Requirements or Regulations:
Quote: T1018517BA
Rockville, Eversource, MGP site
Hold SPLP PAH on SB-24

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

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

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

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

State where samples were collected: CT

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

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 100 of 1005

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Friday, September 22, 2017 9:45 AM
To: Client Services
Subject: RE: Phoenix Labs - GBY98231, - Report Ready
Attachments: SKMBT_C65417092209410.pdf

Sarah:

Please activate SB-24 (2-4) for SPLP PAHs. Phoenix ID BY98233.

It needs to be activated today.

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Monday, September 18, 2017 9:50 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBY98231, - Report Ready

Delivery group GBY98231 for the following samples:

BY98231 - SJB-09A(5-7)
BY98232 - SJB-09A(13-14)
BY98233 - SB-24 (2-4)

is available for review. Please click the following link to view report data.

www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823

www.phoenixlabs.com

Please do not reply to this email.
cc'd:lewilley@tighebond.com

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Cooler: Yes / No
Coolant: IPK / ICE
Temp 4.4 °C Pg 1 of 1

Data Delivery:
Fax #
Email: LEvilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rockville MGP Site
Report to: Lydia Wiley
Invoice to: Tighe + Bond
Phone #: 860-913-5214
Fax #:

Project P.O. 14-0755-0147

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature: [signature] Date: 9/8/17

Analysis Request

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	SOM VOA Vials (Methanol) (3)	40 ml VOA Vials (Methanol)	GL Soil Container (4oz)	GL Amber 1000ml	CL As is 1000ml	PL H2SO4 1 250ml	PL HNO3 1 250ml	PL NaOH 250ml	Bacteria (Yellow)	Bacteria (Blue)
98231	SB-09A(5-7)	Soil(S)	9/8/17	1330	X	X	X	X	X					
98232	SB-09A(13-14)	S	9/8/17	1335	X									
98233	SB-24(2-4)	S	9/8/17	1510	X									

Relinquished by: [signature] Accepted by: TFD Date: 9/8/17 Time: 1630

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

Comments, Special Requirements or Regulations:
Quote: 110285.17.18A
Rockville, Eversource, MGP Site
NEW SPLP PAH for SB-24

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 GeoTech Output

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

* SURCHARGE APPLIES

Page 27 of 27

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Coolant: IPK ☐ ICE ☒ Cooler: Yes ☒ No ☐ Temp 4.4 °C Pg 1 of 1

Good :)

Data Delivery: ☐ Fax # ☒ Email: LEvilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St, Middletown CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond
Phone #: 860-852-5219
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities

Client Sample - Information - Identification
Sampler's Signature: [signature] Date: 9/14/17

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

Analysis Request: VOC 8260B; SVOC 8270C; RSR Metals (Mass + SPLP); TCN (9012); CT ETPH; PAHs 8270C SPLP PAHs; SPLP Cyanide

Bottle types: Soil VOA Vials [X] methanol [X] H2O; GL Soil container (8oz) oz; 40 ml VOA Vial [ ] As is [ ] HCl; GL Amber 1000ml [ ] As is [ ] H2SO4; PL As is [ ]250ml [ ]500ml [ ]1000ml; PL H2SO4 [ ]250ml [ ]500ml; PL HNO3 250ml; PL NaOH 250ml; Bacteria (as is); Bacteria (w/thio)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC 8260B	SVOC 8270C	RSR Metals	TCN	CT ETPH	PAHs SPLP	SPLP Cyanide	Soil VOA Vials	GL Soil container
98231	SB-09A(5-7)	Soil(S)	9/8/17	1330	(Hold) X	X	X	X			(X) added 9/22/17	3	X
98232	SB-09A(13-14)	S	9/8/17	1335	X							X	1
98233	SB-24(2-4)	S	9/14/17	15:00						x (X) update 9/22/17			1

(Annotations: SB 9/22/17; SB 9/22/17)

Relinquished by	Accepted by	Date	Time
[signature]	TFOWWW	9/18/17	10:36

Comments, Special Requirements or Regulations:
Quote: T1035178A
Rockville, Eversource, MGP site
Hold SPLP PAH for SB-24

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

PHOENIX
Environmental Laboratories, Inc.

Thursday, September 28, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BY98840 - BY98842

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

September 28, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/11/17	9:45
Location Code:	TIGHE-DAS	Received by:	B	09/11/17	17:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98840
Phoenix ID: BY98840

Project ID:
Client ID: SB-02 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Arsenic	1.50	0.66	mg/Kg	1	09/13/17	MA	SW6010C
Barium	42.8	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Beryllium	0.29	0.27	mg/Kg	1	09/13/17	MA	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Chromium	14.3	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Copper	16.7	0.33	mg/kg	1	09/13/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/14/17	RS	SW7471B
Nickel	10.9	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Lead	2.92	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	09/13/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	09/13/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/14/17	MA	SW6010C
SPLP Barium	0.022	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/14/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/14/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/14/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/14/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/14/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/14/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	09/14/17	MA	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	09/13/17	MA	SW6010C

Ver 2

Project ID: Phoenix I.D.: BY98840

Client ID: SB-02 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/14/17	W/W	SW3005A
Vanadium	23.0	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Zinc	24.8	0.33	mg/Kg	1	09/13/17	MA	SW6010C
Percent Solid	92		%		09/11/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	09/12/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/12/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/12/17	JC/VCK	SW3545A
Mercury Digestion	Completed				09/14/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/14/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/13/17	W	SW1312
Total Metals Digest	Completed				09/12/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	5700	270	mg/Kg	5	09/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	130		%	5	09/14/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	200	09/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	200	09/13/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2,4-Trimethylbenzene	2000	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	200	09/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	120	ug/Kg	200	09/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	200	09/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	940	800	ug/Kg	200	09/13/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,3-Dichloropropane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
2,2-Dichloropropane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
2-Chlorotoluene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
2-Hexanone	ND	6200	ug/Kg	200	09/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
4-Chlorotoluene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	6200	ug/Kg	200	09/13/17	JLI	SW8260C
Acetone	ND	62000	ug/Kg	200	09/13/17	JLI	SW8260C
Acrylonitrile	ND	120	ug/Kg	200	09/13/17	JLI	SW8260C
Benzene	ND	200	ug/Kg	200	09/13/17	JLI	SW8260C
Bromobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Bromochloromethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C

Ver 2

Project ID: Phoenix I.D.: BY98840

Client ID: SB-02 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	250	ug/Kg	200	09/13/17	JLI	SW8260C
Bromoform	ND	800	ug/Kg	200	09/13/17	JLI	SW8260C
Bromomethane	ND	700	ug/Kg	200	09/13/17	JLI	SW8260C
Carbon Disulfide	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Carbon tetrachloride	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
Chlorobenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Chloroethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Chloroform	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Chloromethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Dibromochloromethane	ND	250	ug/Kg	200	09/13/17	JLI	SW8260C
Dibromomethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Ethylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Isopropylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
m&p-Xylene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	7400	ug/Kg	200	09/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	2500	ug/Kg	200	09/13/17	JLI	SW8260C
Methylene chloride	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Naphthalene	15000	1200	ug/Kg	200	09/13/17	JLI	SW8260C
n-Butylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
n-Propylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
o-Xylene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
sec-Butylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Styrene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
tert-Butylbenzene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Tetrachloroethene	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	800	ug/Kg	200	09/13/17	JLI	SW8260C
Toluene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Total Xylenes	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	2500	ug/Kg	200	09/13/17	JLI	SW8260C
Trichloroethene	ND	1000	ug/Kg	200	09/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	1200	ug/Kg	200	09/13/17	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	200	09/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	200	09/13/17	JLI	70 - 130 %
% Bromofluorobenzene	105		%	200	09/13/17	JLI	70 - 130 %
% Dibromofluoromethane	94		%	200	09/13/17	JLI	70 - 130 %
% Toluene-d8	86		%	200	09/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1700	ug/Kg	20	09/13/17	D/P	SW8270D
1,2,4-Trichlorobenzene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	09/13/17	D/P	SW8270D

Ver 2

Project ID: Phoenix I.D.: BY98840

Client ID: SB-02 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	2800	ug/Kg	20	09/13/17	D/P	SW8270D
1,3-Dichlorobenzene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
1,4-Dichlorobenzene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2,4,5-Trichlorophenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2,4,6-Trichlorophenol	ND	2300	ug/Kg	20	09/13/17	D/P	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	09/13/17	D/P	SW8270D
2,4-Dimethylphenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2,4-Dinitrophenol	ND	3600	ug/Kg	20	09/13/17	D/P	SW8270D
2,4-Dinitrotoluene	ND	2800	ug/Kg	20	09/13/17	D/P	SW8270D
2,6-Dinitrotoluene	ND	2200	ug/Kg	20	09/13/17	D/P	SW8270D
2-Chloronaphthalene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2-Chlorophenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2-Methylnaphthalene	120000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2-Methylphenol (o-cresol)	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2-Nitroaniline	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
2-Nitrophenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	7100	ug/Kg	20	09/13/17	D/P	SW8270D
3,3'-Dichlorobenzidine	ND	3400	ug/Kg	20	09/13/17	D/P	SW8270D
3-Nitroaniline	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
4,6-Dinitro-2-methylphenol	ND	3600	ug/Kg	20	09/13/17	D/P	SW8270D
4-Bromophenyl phenyl ether	ND	7100	ug/Kg	20	09/13/17	D/P	SW8270D
4-Chloro-3-methylphenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
4-Chloroaniline	ND	3300	ug/Kg	20	09/13/17	D/P	SW8270D
4-Chlorophenyl phenyl ether	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
4-Nitroaniline	ND	2400	ug/Kg	20	09/13/17	D/P	SW8270D
4-Nitrophenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Acenaphthene	9400	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Acenaphthylene	67000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Acetophenone	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Aniline	ND	2800	ug/Kg	20	09/13/17	D/P	SW8270D
Anthracene	42000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benz(a)anthracene	37000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzidine	ND	2800	ug/Kg	20	09/13/17	D/P	SW8270D
Benzo(a)pyrene	37000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzo(b)fluoranthene	18000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzo(ghi)perylene	20000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzo(k)fluoranthene	21000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzoic acid	ND	14000	ug/Kg	20	09/13/17	D/P	SW8270D
Benzyl butyl phthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	09/13/17	D/P	SW8270D
Bis(2-chloroethyl)ether	ND	1900	ug/Kg	20	09/13/17	D/P	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	09/13/17	D/P	SW8270D
Bis(2-ethylhexyl)phthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Carbazole	ND	2800	ug/Kg	20	09/13/17	D/P	SW8270D
Chrysene	37000	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Dibenz(a,h)anthracene	3700	3600	ug/Kg	20	09/13/17	D/P	SW8270D
Dibenzofuran	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Diethyl phthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D
Dimethylphthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D

Project ID: Phoenix I.D.: BY98840

Client ID: SB-02 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Di-n-butylphthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	B
Di-n-octylphthalate	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Fluoranthene	75000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Fluorene	59000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Hexachlorobenzene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Hexachlorobutadiene	ND	2600	ug/Kg	20	09/13/17	D/P	SW8270D	
Hexachlorocyclopentadiene	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Hexachloroethane	ND	2100	ug/Kg	20	09/13/17	D/P	SW8270D	
Indeno(1,2,3-cd)pyrene	19000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Isophorone	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Naphthalene	110000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Nitrobenzene	ND	2500	ug/Kg	20	09/13/17	D/P	SW8270D	
N-Nitrosodimethylamine	ND	2000	ug/Kg	20	09/13/17	D/P	SW8270D	
N-Nitrosodi-n-propylamine	ND	2300	ug/Kg	20	09/13/17	D/P	SW8270D	
N-Nitrosodiphenylamine	ND	2700	ug/Kg	20	09/13/17	D/P	SW8270D	
Pentachloronitrobenzene	ND	2600	ug/Kg	20	09/13/17	D/P	SW8270D	
Pentachlorophenol	ND	2700	ug/Kg	20	09/13/17	D/P	SW8270D	
Phenanthrene	120000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Phenol	ND	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Pyrene	110000	5000	ug/Kg	20	09/13/17	D/P	SW8270D	
Pyridine	ND	1700	ug/Kg	20	09/13/17	D/P	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
% 2-Fluorobiphenyl	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
% 2-Fluorophenol	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
% Nitrobenzene-d5	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
% Phenol-d5	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
% Terphenyl-d14	Diluted Out		%	20	09/13/17	D/P	30 - 130 %	
Field Extraction	Completed				09/11/17		SW5035A	

Project ID: Phoenix I.D.: BY98840

Client ID: SB-02 (19-20)

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

B = Present in blank, no bias suspected.

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

Comments:

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

Semi-Volatile Comment:
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.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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.
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Phyllis Shiller, Laboratory Director
September 28, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 28, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/11/17	13:45
Location Code:	TIGHE-DAS	Received by:	B	09/11/17	17:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98840
Phoenix ID: BY98841

Project ID:
Client ID: SB-21 (0.5-2.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		09/11/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				09/12/17	JJ/CKV	SW3545A
SPLP Extraction for Organics	Completed				09/22/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/25/17	P/D	SW3510C/SW3520C
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	09/13/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	09/13/17	DD	SW8270D
Acenaphthylene	470	250	ug/Kg	1	09/13/17	DD	SW8270D
Anthracene	440	250	ug/Kg	1	09/13/17	DD	SW8270D
Benz(a)anthracene	1200	250	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(a)pyrene	1100	250	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(b)fluoranthene	1100	250	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(ghi)perylene	870	250	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(k)fluoranthene	1000	250	ug/Kg	1	09/13/17	DD	SW8270D
Chrysene	1300	250	ug/Kg	1	09/13/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	09/13/17	DD	SW8270D
Fluoranthene	2300	250	ug/Kg	1	09/13/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	09/13/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	950	250	ug/Kg	1	09/13/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	09/13/17	DD	SW8270D
Phenanthrene	1700	250	ug/Kg	1	09/13/17	DD	SW8270D
Pyrene	2200	250	ug/Kg	1	09/13/17	DD	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	09/13/17	DD	30 - 130 %
% Nitrobenzene-d5	80		%	1	09/13/17	DD	30 - 130 %
% Terphenyl-d14	69		%	1	09/13/17	DD	30 - 130 %

Project ID:
Phoenix I.D.: BY98841

Client ID: SB-21 (0.5-2.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Acenaphthene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Acenaphthylene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Anthracene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	09/26/17	G	SW8270D (SIM)
Fluoranthene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	09/26/17	G	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	09/26/17	G	SW8270D (SIM)
Pyrene	ND	0.09	ug/L	1	09/26/17	G	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	09/26/17	G	30 - 130 %
% Nitrobenzene-d5	62		%	1	09/26/17	G	30 - 130 %
% Terphenyl-d14	82		%	1	09/26/17	G	30 - 130 %

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

Comments:

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

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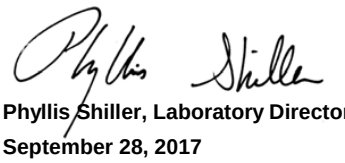

Phyllis Shiller, Laboratory Director
September 28, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 28, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/11/17	14:20
Location Code:	TIGHE-DAS	Received by:	B	09/11/17	17:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBY98840
Phoenix ID: BY98842

Project ID:
Client ID: SB-23 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	88		%		09/11/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				09/12/17	JJ/CKV	SW3545A
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	09/13/17	DD	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	1	09/13/17	DD	30 - 130 %
% Nitrobenzene-d5	78		%	1	09/13/17	DD	30 - 130 %
% Terphenyl-d14	69		%	1	09/13/17	DD	30 - 130 %

Project ID: Phoenix I.D.: BY98842
Client ID: SB-23 (2-4)

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:

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

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Phyllis Shiller, Laboratory Director
September 28, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

September 28, 2017

QA/QC Data

SDG I.D.: GBY98840

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 401310 (mg/L), QC Sample No: BY98775 (BY98840)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	87.7			87.5			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 401312 (mg/L), QC Sample No: BY98840 (BY98840)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	96.4			96.2			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	94.0			94.6			75 - 125	20	
Barium	BRL	0.010	0.022	0.021	NC	101			101			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	101			100			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	97.9			97.0			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	96.6			96.6			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	99.5			99.9			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	95.8			95.2			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	98.5			97.9			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	97.2			97.1			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	96.9			97.5			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	96.6			96.2			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	96.9			96.9			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	97.6			97.4			75 - 125	20	
QA/QC Batch 401046 (mg/kg), QC Sample No: BY98873 (BY98840)														
ICP Metals - Soil														
Antimony	BRL	3.5	<3.8	<3.9	NC	86.8			91.0			75 - 125	30	
Arsenic	BRL	0.69	4.09	2.57	NC	90.7			86.2			75 - 125	30	
Barium	BRL	0.35	40.6	38.9	4.30	94.7			94.9			75 - 125	30	
Beryllium	BRL	0.28	<0.30	<0.31	NC	92.1			88.7			75 - 125	30	
Cadmium	BRL	0.35	<0.38	<0.39	NC	95.5			93.8			75 - 125	30	
Chromium	BRL	0.35	18.9	17.5	7.70	96.0			88.3			75 - 125	30	
Copper	BRL	0.35	13.1	10.5	22.0	98.9			98.7			75 - 125	30	
Lead	BRL	0.35	20.5	14.4	35.0	94.1			92.1			75 - 125	30	r
Nickel	BRL	0.35	8.65	8.34	3.60	95.8			90.8			75 - 125	30	
Selenium	BRL	1.4	<1.5	<1.6	NC	90.8			77.5			75 - 125	30	
Silver	BRL	0.35	<0.38	<0.39	NC	96.6			90.6			75 - 125	30	
Thallium	BRL	3.1	<3.4	<3.5	NC	99.8			96.0			75 - 125	30	
Vanadium	BRL	0.35	46.5	15.6	99.5	101			75.6			75 - 125	30	r
Zinc	BRL	0.35	49.0	51.7	5.40	96.7			95.4			75 - 125	30	
QA/QC Batch 401307 (mg/kg), QC Sample No: BZ00051 (BY98840)														
Mercury - Soil	BRL	0.03	0.06	0.06	NC	93.7	92.3	1.5	93.9			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														

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

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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 400925 (mg/Kg), QC Sample No: BY97952 50X (BY98840)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.48	<0.48	NC	92.9			97.5			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 401037 (ug/kg), QC Sample No: BY98841 (BY98841, BY98842)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	230	61	65	6.3	66			30 - 130	30	
Acenaphthene	ND	230	69	77	11.0	73			30 - 130	30	
Acenaphthylene	ND	230	65	70	7.4	68			30 - 130	30	
Anthracene	ND	230	71	78	9.4	65			30 - 130	30	
Benz(a)anthracene	ND	230	75	78	3.9	47			30 - 130	30	
Benzo(a)pyrene	ND	230	72	75	4.1	45			30 - 130	30	
Benzo(b)fluoranthene	ND	230	78	78	0.0	57			30 - 130	30	
Benzo(ghi)perylene	ND	230	63	69	9.1	42			30 - 130	30	
Benzo(k)fluoranthene	ND	230	70	77	9.5	47			30 - 130	30	
Chrysene	ND	230	71	77	8.1	49			30 - 130	30	
Dibenz(a,h)anthracene	ND	230	69	76	9.7	62			30 - 130	30	
Fluoranthene	ND	230	73	77	5.3	26			30 - 130	30	m
Fluorene	ND	230	67	76	12.6	73			30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	72	74	2.7	46			30 - 130	30	
Naphthalene	ND	230	59	64	8.1	66			30 - 130	30	
Phenanthrene	ND	230	68	74	8.5	31			30 - 130	30	
Pyrene	ND	230	72	78	8.0	33			30 - 130	30	
% 2-Fluorobiphenyl	60	%	65	70	7.4	64			30 - 130	30	
% Nitrobenzene-d5	59	%	70	73	4.2	83			30 - 130	30	
% Terphenyl-d14	68	%	69	73	5.6	66			30 - 130	30	

Comment:

MSD not reported for this batch.

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

QA/QC Batch 401371 (ug/kg), QC Sample No: BY98870 (BY98840 (200X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	107	110	2.8	103	105	1.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	102	103	1.0	104	97	7.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	116	118	1.7	113	111	1.8	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	107	108	0.9	106	104	1.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0	104	108	3.8	103	102	1.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	104	110	5.6	92	94	2.2	70 - 130	30	
1,1-Dichloropropene	ND	5.0	105	111	5.6	110	109	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	116	119	2.6	108	112	3.6	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	104	107	2.8	101	101	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	116	118	1.7	108	109	0.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	113	115	1.8	112	111	0.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	116	119	2.6	106	108	1.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0	107	109	1.9	105	106	0.9	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	113	116	2.6	109	110	0.9	70 - 130	30	

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloroethane	ND	5.0	106	106	0.0	105	104	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	108	108	0.0	111	109	1.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	113	117	3.5	114	112	1.8	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	112	114	1.8	107	107	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	104	108	3.8	102	106	3.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	112	115	2.6	109	107	1.9	70 - 130	30	
2,2-Dichloropropane	ND	5.0	104	107	2.8	95	92	3.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	115	119	3.4	114	114	0.0	70 - 130	30	
2-Hexanone	ND	25	85	87	2.3	83	82	1.2	70 - 130	30	
2-Isopropyltoluene	ND	5.0	101	104	2.9	104	102	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	113	115	1.8	111	110	0.9	70 - 130	30	
4-Methyl-2-pentanone	ND	25	90	89	1.1	89	86	3.4	70 - 130	30	
Acetone	ND	10	71	72	1.4	62	62	0.0	70 - 130	30	m
Acrylonitrile	ND	5.0	89	88	1.1	87	84	3.5	70 - 130	30	
Benzene	ND	1.0	102	106	3.8	107	104	2.8	70 - 130	30	
Bromobenzene	ND	5.0	116	118	1.7	113	113	0.0	70 - 130	30	
Bromochloromethane	ND	5.0	100	102	2.0	97	96	1.0	70 - 130	30	
Bromodichloromethane	ND	5.0	108	109	0.9	104	102	1.9	70 - 130	30	
Bromoform	ND	5.0	104	106	1.9	90	94	4.3	70 - 130	30	
Bromomethane	ND	5.0	125	132	5.4	89	96	7.6	70 - 130	30	l
Carbon Disulfide	ND	5.0	98	102	4.0	69	72	4.3	70 - 130	30	m
Carbon tetrachloride	ND	5.0	106	110	3.7	102	98	4.0	70 - 130	30	
Chlorobenzene	ND	5.0	108	110	1.8	109	108	0.9	70 - 130	30	
Chloroethane	ND	5.0	95	102	7.1	40	38	5.1	70 - 130	30	m
Chloroform	ND	5.0	97	101	4.0	91	96	5.3	70 - 130	30	
Chloromethane	ND	5.0	103	106	2.9	102	96	6.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	100	103	3.0	102	101	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	113	115	1.8	110	108	1.8	70 - 130	30	
Dibromochloromethane	ND	3.0	114	116	1.7	104	107	2.8	70 - 130	30	
Dibromomethane	ND	5.0	107	109	1.9	105	104	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	113	115	1.8	110	104	5.6	70 - 130	30	
Ethylbenzene	ND	1.0	108	109	0.9	110	110	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	121	124	2.4	121	121	0.0	70 - 130	30	
Isopropylbenzene	ND	1.0	117	119	1.7	118	116	1.7	70 - 130	30	
m&p-Xylene	ND	2.0	105	108	2.8	107	107	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	79	79	0.0	77	74	4.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	84	89	5.8	82	83	1.2	70 - 130	30	
Methylene chloride	ND	5.0	85	88	3.5	82	84	2.4	70 - 130	30	
Naphthalene	ND	5.0	120	123	2.5	116	120	3.4	70 - 130	30	
n-Butylbenzene	ND	1.0	124	126	1.6	122	120	1.7	70 - 130	30	
n-Propylbenzene	ND	1.0	117	119	1.7	118	115	2.6	70 - 130	30	
o-Xylene	ND	2.0	110	113	2.7	112	112	0.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	117	120	2.5	118	116	1.7	70 - 130	30	
sec-Butylbenzene	ND	1.0	118	121	2.5	121	119	1.7	70 - 130	30	
Styrene	ND	5.0	108	110	1.8	107	108	0.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	114	118	3.4	120	116	3.4	70 - 130	30	
Tetrachloroethene	ND	5.0	113	114	0.9	119	114	4.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	82	85	3.6	83	80	3.7	70 - 130	30	
Toluene	ND	1.0	108	111	2.7	114	109	4.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	103	106	2.9	100	99	1.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	108	109	0.9	102	101	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	105	107	1.9	91	91	0.0	70 - 130	30	
Trichloroethene	ND	5.0	110	110	0.0	110	108	1.8	70 - 130	30	

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Trichlorofluoromethane	ND	5.0	92	95	3.2	22	21	4.7	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	91	94	3.2	87	83	4.7	70 - 130	30	
Vinyl chloride	ND	5.0	106	107	0.9	107	102	4.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	92	%	101	101	0.0	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	97	97	0.0	95	100	5.1	70 - 130	30	
% Dibromofluoromethane	96	%	91	93	2.2	93	91	2.2	70 - 130	30	
% Toluene-d8	88	%	100	98	2.0	103	102	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 401036 (ug/kg), QC Sample No: BY99070 (BY98840)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	65	66	1.5	57	60	5.1	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	64	66	3.1	56	60	6.9	30 - 130	30	
1,2-Dichlorobenzene	ND	180	57	60	5.1	50	53	5.8	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	70	73	4.2	65	65	0.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	54	57	5.4	47	49	4.2	30 - 130	30	
1,4-Dichlorobenzene	ND	230	56	59	5.2	49	51	4.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	73	74	1.4	67	70	4.4	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	72	73	1.4	64	67	4.6	30 - 130	30	
2,4-Dichlorophenol	ND	130	69	70	1.4	59	63	6.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	74	74	0.0	65	68	4.5	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	28	21	28.6	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	75	78	3.9	68	70	2.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	77	79	2.6	69	71	2.9	30 - 130	30	
2-Chloronaphthalene	ND	230	68	71	4.3	64	67	4.6	30 - 130	30	
2-Chlorophenol	ND	230	65	68	4.5	57	60	5.1	30 - 130	30	
2-Methylnaphthalene	ND	230	67	68	1.5	59	62	5.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	64	66	3.1	57	59	3.4	30 - 130	30	
2-Nitroaniline	ND	330	101	105	3.9	92	96	4.3	30 - 130	30	
2-Nitrophenol	ND	230	67	68	1.5	57	59	3.4	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	69	71	2.9	63	65	3.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	85	88	3.5	89	94	5.5	30 - 130	30	
3-Nitroaniline	ND	330	86	90	4.5	76	80	5.1	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	14	17	19.4	37	34	8.5	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	72	74	2.7	63	66	4.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	74	77	4.0	65	68	4.5	30 - 130	30	
4-Chloroaniline	ND	230	71	72	1.4	60	63	4.9	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	71	72	1.4	65	67	3.0	30 - 130	30	
4-Nitroaniline	ND	230	73	75	2.7	68	68	0.0	30 - 130	30	
4-Nitrophenol	ND	230	71	73	2.8	66	65	1.5	30 - 130	30	
Acenaphthene	ND	230	75	76	1.3	70	72	2.8	30 - 130	30	
Acenaphthylene	ND	130	68	70	2.9	63	65	3.1	30 - 130	30	
Acetophenone	ND	230	61	64	4.8	53	56	5.5	30 - 130	30	
Aniline	ND	330	57	59	3.4	44	46	4.4	30 - 130	30	
Anthracene	ND	230	75	78	3.9	71	74	4.1	30 - 130	30	
Benz(a)anthracene	ND	230	74	77	4.0	66	69	4.4	30 - 130	30	
Benzidine	ND	330	44	44	0.0	25	36	36.1	30 - 130	30	m,r
Benzo(a)pyrene	ND	130	74	76	2.7	61	66	7.9	30 - 130	30	
Benzo(b)fluoranthene	ND	160	77	80	3.8	69	68	1.5	30 - 130	30	
Benzo(ghi)perylene	ND	230	68	71	4.3	51	55	7.5	30 - 130	30	
Benzo(k)fluoranthene	ND	230	73	76	4.0	62	69	10.7	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	23	16	35.9	30 - 130	30	l,m,r

QA/QC Data

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzyl butyl phthalate	ND	230	77	82	6.3	71	73	2.8	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	69	70	1.4	58	62	6.7	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	55	59	7.0	48	50	4.1	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	54	58	7.1	50	51	2.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	76	82	7.6	73	72	1.4	30 - 130	30	
Carbazole	ND	230	76	79	3.9	70	73	4.2	30 - 130	30	
Chrysene	ND	230	73	76	4.0	65	68	4.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	75	78	3.9	63	67	6.2	30 - 130	30	
Dibenzofuran	ND	230	71	73	2.8	65	67	3.0	30 - 130	30	
Diethyl phthalate	ND	230	72	75	4.1	67	69	2.9	30 - 130	30	
Dimethylphthalate	ND	230	72	73	1.4	65	67	3.0	30 - 130	30	
Di-n-butylphthalate	320	230	86	91	5.6	69	71	2.9	30 - 130	30	
Di-n-octylphthalate	ND	230	85	91	6.8	83	84	1.2	30 - 130	30	
Fluoranthene	ND	230	74	76	2.7	57	64	11.6	30 - 130	30	
Fluorene	ND	230	73	74	1.4	68	71	4.3	30 - 130	30	
Hexachlorobenzene	ND	130	73	78	6.6	69	72	4.3	30 - 130	30	
Hexachlorobutadiene	ND	230	61	62	1.6	51	55	7.5	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	62	63	1.6	14	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	55	58	5.3	37	38	2.7	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	77	79	2.6	58	62	6.7	30 - 130	30	
Isophorone	ND	130	64	65	1.6	55	57	3.6	30 - 130	30	
Naphthalene	ND	230	65	67	3.0	58	61	5.0	30 - 130	30	
Nitrobenzene	ND	130	63	66	4.7	56	58	3.5	30 - 130	30	
N-Nitrosodimethylamine	ND	230	49	53	7.8	43	45	4.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	65	67	3.0	57	58	1.7	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75	78	3.9	68	70	2.9	30 - 130	30	
Pentachloronitrobenzene	ND	230	74	77	4.0	65	65	0.0	30 - 130	30	
Pentachlorophenol	ND	230	53	53	0.0	46	46	0.0	30 - 130	30	
Phenanthrene	ND	130	73	75	2.7	59	61	3.3	30 - 130	30	
Phenol	ND	230	64	66	3.1	56	59	5.2	30 - 130	30	
Pyrene	ND	230	75	77	2.6	60	65	8.0	30 - 130	30	
Pyridine	ND	230	35	37	5.6	32	33	3.1	30 - 130	30	
% 2,4,6-Tribromophenol	68	%	73	78	6.6	71	71	0.0	30 - 130	30	
% 2-Fluorobiphenyl	71	%	69	72	4.3	63	66	4.7	30 - 130	30	
% 2-Fluorophenol	60	%	58	62	6.7	50	53	5.8	30 - 130	30	
% Nitrobenzene-d5	63	%	61	65	6.3	54	56	3.6	30 - 130	30	
% Phenol-d5	65	%	64	66	3.1	57	59	3.4	30 - 130	30	
% Terphenyl-d14	74	%	72	76	5.4	62	65	4.7	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%)

QA/QC Batch 401078 (mg/Kg), QC Sample No: BY99654 (BY98840)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	73	76	4.0	97	82	16.8	60 - 120	30	
% n-Pentacosane	75	%	76	78	2.6	65	72	10.2	50 - 150	30	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 402869 (ug/L), QC Sample No: BZ08120 (BY98841)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	78	69	12.2				30 - 130	20	
Acenaphthene	ND	0.05	80	72	10.5				30 - 130	20	

QA/QC Data

SDG I.D.: GBY98840

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Acenaphthylene	ND	0.04	72	66	8.7				30 - 130	20
Anthracene	ND	0.02	82	80	2.5				30 - 130	20
Benz(a)anthracene	ND	0.03	70	69	1.4				30 - 130	20
Benzo(a)pyrene	ND	0.02	65	65	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.03	69	67	2.9				30 - 130	20
Benzo(ghi)perylene	ND	0.02	50	55	9.5				30 - 130	20
Benzo(k)fluoranthene	ND	0.03	71	70	1.4				30 - 130	20
Chrysene	ND	0.05	73	72	1.4				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	57	63	10.0				30 - 130	20
Fluoranthene	ND	0.04	79	74	6.5				30 - 130	20
Fluorene	ND	0.05	78	73	6.6				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	56	61	8.5				30 - 130	20
Naphthalene	ND	0.05	57	47	19.2				30 - 130	20
Phenanthrene	ND	0.05	76	74	2.7				30 - 130	20
Pyrene	ND	0.02	81	76	6.4				30 - 130	20
% 2-Fluorobiphenyl	37	%	68	59	14.2				30 - 130	20
% Nitrobenzene-d5	30	%	50	46	8.3				30 - 130	20
% Terphenyl-d14	72	%	75	70	6.9				30 - 130	20

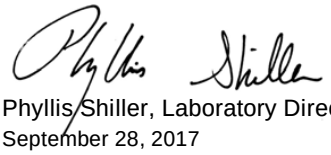
Comment:

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

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
September 28, 2017

Thursday, September 28, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBY98840 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BY98840	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	250	90	90	ug/Kg
BY98840	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	120	7	7	ug/Kg
BY98840	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	250	210	210	ug/Kg
BY98840	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	250	40	40	ug/Kg
BY98840	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	250	200	200	ug/Kg
BY98840	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	250	100	100	ug/Kg
BY98840	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	120	100	100	ug/Kg
BY98840	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	120	100	100	ug/Kg
BY98840	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	250	100	100	ug/Kg
BY98840	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	1200	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	200	200	ug/Kg
BY98840	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2000	200	200	ug/Kg
BY98840	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3300	3100	3100	ug/Kg
BY98840	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3400	1400	1400	ug/Kg
BY98840	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	20000	5000	8400	8400	ug/Kg
BY98840	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2200	900	900	ug/Kg
BY98840	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	3700	3600	1000	1000	ug/Kg
BY98840	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	900	900	ug/Kg
BY98840	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	19000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	770	770	ug/Kg
BY98840	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2300	200	200	ug/Kg
BY98840	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	37000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	21000	5000	8400	8400	ug/Kg
BY98840	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	37000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1900	1000	1000	ug/Kg
BY98840	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1200	1200	ug/Kg
BY98840	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2400	2000	2000	ug/Kg
BY98840	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3300	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BY98840	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3600	2000	2000	ug/Kg
BY98840	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5000	2000	2000	ug/Kg
BY98840	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3400	1000	1000	ug/Kg
BY98840	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5000	2000	2000	ug/Kg
BY98840	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BY98840	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BY98840	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3600	2800	2800	ug/Kg
BY98840	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg
BY98840	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BY98840	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BY98840	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	120000	5000	5600	5600	ug/Kg

Thursday, September 28, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBY98840 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BY98840	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2500	1000	1000	ug/Kg
BY98840	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BY98840	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2600	1400	1400	ug/Kg
BY98840	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1400	1400	ug/Kg
BY98840	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1000	1000	ug/Kg
BY98840	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	19000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	5000	1400	1400	ug/Kg
BY98840	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	37000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	20000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg
BY98840	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BY98840	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	3700	3600	1000	1000	ug/Kg
BY98840	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	37000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	110000	5000	40000	40000	ug/Kg
BY98840	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2700	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	18000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	37000	5000	1000	1000	ug/Kg
BY98840	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	120000	5000	40000	40000	ug/Kg
BY98840	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	110000	5000	56000	56000	ug/Kg
BY98840	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2100	1000	1000	ug/Kg
BY98840	$8270-SMR	Fluorene	CT / RSR GB (mg/kg) / Semivolatiles	59000	5000	56000	56000	ug/Kg
BY98840	$8270-SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	75000	5000	56000	56000	ug/Kg
BY98840	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	21000	5000	1000	1000	ug/Kg
BY98840	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	5700	270	500	500	mg/Kg
BY98840	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	5700	270	2500	2500	mg/Kg
BY98841	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1200	250	1000	1000	ug/Kg
BY98841	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	250	1000	1000	ug/Kg
BY98841	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	250	1000	1000	ug/Kg
BY98841	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1300	250	1000	1000	ug/Kg
BY98841	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1200	250	1000	1000	ug/Kg
BY98841	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1100	250	1000	1000	ug/Kg
BY98841	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1100	250	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP SITE ***Project Number:***

Laboratory Sample ID(s): BY98840-BY98842 ***Sampling Date(s):*** 9/11/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

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

Printed Name: Ethan Lee **Date:** Thursday, September 28, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 28, 2017

SDG I.D.: GBY98840

SDG Comments

8270 Semi-volatile Organics: BY98841 and BY98842
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

BY98840 - Sample(s) required a dilution for Semivolatiles due to a matrix interference and/or the presence of a large amount of non-target material in the sample. This resulted in elevated reporting limits that exceed the requested criteria for one or more analytes.

BY98840 - Sample(s) required a dilution for Volatiles due to the presence of target and/or non-target compounds. This resulted in elevated reporting limits that exceed the requested criteria for one or more analytes.

Cyanide Narration

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

Instrument:

LACHAT 09/12/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/12/17

BY98840

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 400925 (BY97952)

BY98840

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

ETPH Narration

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

Instrument:

AU-FID21 09/13/17-1 Jeff Bucko, Chemist 09/13/17

BY98840

The initial calibration (ETPH819I) 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 401078 (BY99654)

Environmental Laboratories, Inc.
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RCP Certification Report

September 28, 2017

SDG I.D.: GBY98840

ETPH Narration

BY98840

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

Mercury Narration

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

Instrument:

MERLIN 09/14/17 09:19 Rick Schweitzer, Chemist 09/14/17

BY98840

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 401307 (BZ00051)

BY98840

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

Batch 401310 (BY98775)

BY98840

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

ICP Metals 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

Certification Report

September 28, 2017

SDG I.D.: GBY98840

ICP Metals Narration

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

QC Batch 401046 (Samples: BY98840): -----

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

Instrument:

ARCOS 09/13/17 07:00 Mike Arsenault, Chemist 09/13/17

BY98840

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

BLUE 09/14/17 07:08 Mike Arsenault, Chemist 09/14/17

BY98840

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

QC (Batch Specific):

Batch 401046 (BY98873)

BY98840

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

QC (Site Specific):

Batch 401312 (BY98840)

BY98840

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

September 28, 2017

SDG I.D.: GBY98840

SVOA Narration

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

QC Batch 401036 (Samples: BY98840): -----

A trace amount of an analyte was found in the blank but was not reported in the sample(s), therefore no bias is suspected. (Di-n-butylphthalate)

The LCS/LCSD recovery is below the lower range but within the method criteria. A low bias for this analyte is possible. (4,6-Dinitro-2-methylphenol)

The LCS/LCSD recovery is below the method criteria. A low bias is likely. (2,4-Dinitrophenol, Benzoic Acid)

QC Batch 401037 (Samples: BY98841, BY98842): -----

The LCS/LCSD recovery is acceptable. One analyte in the site specific matrix spike recovery is below the lower range but within the method criteria, therefore a low bias is possible. (Fluoranthene)

Instrument:

CHEM06 09/12/17-1 Damien Drobinski, Chemist 09/12/17

BY98841, BY98842

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

Initial Calibration Verification (CHEM06/BN_0831):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/0912_04-BN_0831):
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.

CHEM25 09/13/17-1 Damien Drobinski, Chemist 09/13/17

BY98840

Initial Calibration Verification (CHEM25/SPLIT_0831):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 27% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.043 (0.1), Hexachlorobenzene 0.078 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0913_02-SPLIT_0831):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 28, 2017

SDG I.D.: GBY98840

SVOA Narration

The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 39%H (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.047 (0.1), Bis(2-chloroethoxy)methane 0.289 (0.3), Hexachlorobenzene 0.065 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 401036 (BY99070)

BY98840

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(14%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(17%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QC (Site Specific):

Batch 401037 (BY98841)

BY98841, BY98842

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: Fluoranthene(26%)
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.
MSD not reported for this batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

Instrument:

CHEM07 09/26/17-1 Damien Drobinski, Chemist 09/26/17

BY98841

Initial Calibration Verification (CHEM07/SIM_0926):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/0926_13-SIM_0926):
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.

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RCP Certification Report

September 28, 2017

SDG I.D.: GBY98840

SVOASIM Narration

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 402869 (BZ08120)

BY98841

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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 401037 (BY98841)

BY98841, BY98842

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: Fluoranthene(26%)
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.
MSD not reported for this batch.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 401371 (Samples: BY98840): -----

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Bromomethane)

Instrument:

CHEM18 09/13/17-1 Jane Li, Chemist 09/13/17

BY98840

Initial Calibration Verification (CHEM18/VT-M0911):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromomethane 21% (20%), Methylene chloride 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM18/0913M02-VT-M0911):

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

RCP Certification Report

September 28, 2017

SDG I.D.: GBY98840

VOA Narration

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 401371 (BY98870)

BY98840

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(132%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp. 2.6 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Data Delivery:
[ ] Fax #:
[X] Email: LWilley@tryonboard.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond
Phone #: 860-852-5219
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/11/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Suite	EPH	ESR metals	SPLP TCLP metals	Total Cyanide	VOCs	PAH	SPLP PAH	Soil VOA Vials [X] methanol [ ] H2O	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 (as is)	Bacteria (w/thio)
98840	SB-20 (19-20)	S	9/11/17	9:45	X	X	X	X	X	X			3	1								
98841	SB-21 (23.5-25)	S	9/11/17	13:45							X	HW		1								
98842	SB-23 (2-4)	S	9/11/17	17:20							X	HW		1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	CParadise	9/11/17	1707

Comments, Special Requirements or Regulations:
Quote: TB085178A
Please use "SB" Prefix not "TB"

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

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

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

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

State where samples were collected: CT

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

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 133 of 1005

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Cooler: Yes / No
Coolant: IPK / ICE
Temp: 4.6 °C Pg 1 of 1

Data Delivery:
Fax #:
Email: [illegible]

Customer: Eversource Energy
Address: 107 Selden St
Wethersfield CT

Project: Rockville MGP Site
Report to: Lynn Willsey
Invoice to: Eversource
Phone #: 860-665-5017
Fax #:

Project P.O.: 4500755004

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 9/11/17

Client Sample - Information - Identification

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
98840	SB-08 (19-20)	S	9/11/17	9:45
98841	SB-21 (25-25.5)	S	9/11/17	13:35
98842	SB-23 (8-9)	S	9/11/17	14:20

Analysis Request

Soil VOA Vials (2 containers)	40 ml VOA Vials (2 containers)	Gl. Soil container (4 oz)	Gl. Amber 1000ml	Pl. As is	Pl. HNO3 250ml	Pl. NaOH 250ml	Bacteria (yellow)
3	1						
		1	1				
		1					

Relinquished by: [signature] Date: 9/11/17 Time: 1707

Accepted by: [signature]

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 Packages* / Phoenix Std Report / Other

* SURCHARGE APPLIES

Comments, Special Requirements or Regulations:
Quote: 17B5176M
Please use "SB" Prefix

Page 28 of 28

PHOENIX
Environmental Laboratories, Inc.

Wednesday, September 20, 2017

Attn: Ms. Lynn Wiley
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ00337

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

September 20, 2017

FOR: Attn: Ms. Lynn Wiley
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/13/17	9:45
Location Code:	TIGHE-DAS	Received by:	LB	09/13/17	16:21
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ00337
Phoenix ID: BZ00337

Project ID:
Client ID: SB-12 (20-22)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Arsenic	< 0.86	0.86	mg/Kg	1	09/14/17	MA	SW6010C
Barium	24.5	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Beryllium	< 0.34	0.34	mg/Kg	1	09/14/17	MA	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Chromium	6.08	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Copper	3.94	0.43	mg/kg	1	09/14/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/19/17	MA	SW7471B
Nickel	2.87	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Lead	2.56	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Antimony	< 4.3	4.3	mg/Kg	1	09/14/17	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	09/14/17	MA	SW6010C
Thallium	< 3.9	3.9	mg/Kg	1	09/14/17	MA	SW6010C
Vanadium	13.5	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Zinc	7.72	0.43	mg/Kg	1	09/14/17	MA	SW6010C
Percent Solid	80		%		09/13/17	I	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.63	0.63	mg/Kg	1	09/14/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/13/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/13/17	BJ/VCK	SW3545A
Mercury Digestion	Completed				09/16/17	W/W	SW7471B
Total Metals Digest	Completed				09/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	62	mg/Kg	1	09/14/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	09/14/17	JRB	50 - 150 %

Ver 1

Project ID:
Client ID: SB-12 (20-22)

Phoenix I.D.: BZ00337

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	09/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
2-Chlorotoluene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	09/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
4-Chlorotoluene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	09/14/17	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	09/14/17	JLI	SW8260C
Acrylonitrile	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Benzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Bromobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Bromochloromethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Bromodichloromethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Bromoform	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Bromomethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Carbon Disulfide	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Carbon tetrachloride	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Chlorobenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Chloroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Chloroform	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Chloromethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	09/14/17	JLI	SW8260C
Dibromomethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Ethylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Isopropylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C

Project ID: Phoenix I.D.: BZ00337

Client ID: SB-12 (20-22)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	09/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	09/14/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	09/14/17	JLI	SW8260C
Naphthalene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
n-Butylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
n-Propylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
o-Xylene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
sec-Butylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Styrene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
tert-Butylbenzene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Tetrachloroethene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	09/14/17	JLI	SW8260C
Toluene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Total Xylenes	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	09/14/17	JLI	SW8260C
Trichloroethene	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
Vinyl chloride	ND	6.0	ug/Kg	1	09/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	09/14/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	09/14/17	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	09/14/17	JLI	70 - 130 %
% Toluene-d8	93		%	1	09/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	420	ug/Kg	1	09/14/17	DD	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,4-Dinitrophenol	ND	420	ug/Kg	1	09/14/17	DD	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
2-Nitroaniline	ND	420	ug/Kg	1	09/14/17	DD	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	09/14/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
3-Nitroaniline	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
4,6-Dinitro-2-methylphenol	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
4-Chloroaniline	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
4-Nitroaniline	ND	660	ug/Kg	1	09/14/17	DD	SW8270D	
4-Nitrophenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Acenaphthene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Acenaphthylene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Acetophenone	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Aniline	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
Anthracene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benz(a)anthracene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benzidine	ND	200	ug/Kg	1	09/14/17	DD	SW8270D	
Benzo(a)pyrene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benzo(b)fluoranthene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benzo(ghi)perylene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benzo(k)fluoranthene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Benzoic acid	ND	830	ug/Kg	1	09/14/17	DD	SW8270D	
Benzyl butyl phthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Carbazole	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
Chrysene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Dibenzofuran	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Diethyl phthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Dimethylphthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Di-n-butylphthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	B
Di-n-octylphthalate	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Fluoranthene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Fluorene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Hexachlorobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Hexachlorobutadiene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Hexachloroethane	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Isophorone	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Naphthalene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
Nitrobenzene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D	
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/14/17	DD	SW8270D	
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/14/17	DD	SW8270D	
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
Pentachloronitrobenzene	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	
Pentachlorophenol	ND	420	ug/Kg	1	09/14/17	DD	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
Phenol	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
Pyrene	ND	290	ug/Kg	1	09/14/17	DD	SW8270D
Pyridine	ND	420	ug/Kg	1	09/14/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	71		%	1	09/14/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	09/14/17	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	09/14/17	DD	30 - 130 %
% Nitrobenzene-d5	53		%	1	09/14/17	DD	30 - 130 %
% Phenol-d5	54		%	1	09/14/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	09/14/17	DD	30 - 130 %
Field Extraction	Completed				09/13/17		SW5035A

B = Present in blank, no bias suspected.

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
September 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

September 20, 2017

QA/QC Data

SDG I.D.: GBZ00337

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 401748 (mg/kg), QC Sample No: BY99618 (BZ00337)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	89.2	79.6	11.4	95.5			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 401217 (mg/kg), QC Sample No: BZ00019 (BZ00337)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.9	<3.6	NC	97.5			81.9			75 - 125	30
Arsenic	BRL	0.66	2.26	1.96	NC	86.4			83.9			75 - 125	30
Barium	BRL	0.33	271	256	5.70	93.1			96.1			75 - 125	30
Beryllium	BRL	0.26	0.61	0.57	NC	88.6			85.8			75 - 125	30
Cadmium	BRL	0.33	<0.39	<0.36	NC	86.4			84.2			75 - 125	30
Chromium	BRL	0.33	63.6	65.4	2.80	92.8			91.8			75 - 125	30
Copper	BRL	0.33	26.6	29.5	10.3	95.9			109			75 - 125	30
Lead	BRL	0.33	<0.39	<0.36	NC	85.4			90.1			75 - 125	30
Nickel	BRL	0.33	19.4	20.9	7.40	89.6			86.8			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.4	NC	87.4			77.1			75 - 125	30
Silver	BRL	0.33	<0.39	<0.36	NC	94.3			98.1			75 - 125	30
Thallium	BRL	3.0	<3.5	<3.2	NC	94.1			92.0			75 - 125	30
Vanadium	BRL	0.33	48.8	48.7	0.20	98.4			91.2			75 - 125	30
Zinc	BRL	0.33	48.2	48.8	1.20	91.0			92.1			75 - 125	30

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QA/QC Report

September 20, 2017

QA/QC Data

SDG I.D.: GBZ00337

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 401257 (mg/Kg), QC Sample No: BY96711 50X (BZ00337)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.57	<0.57	NC	95.9			99.0			80 - 120	30

Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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QA/QC Report

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SDG I.D.: GBZ00337

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 401614 (ug/kg), QC Sample No: BZ00013 (BZ00337)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	113	112	0.9	100	106	5.8	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	98	91	7.4	94	98	4.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	96	91	5.3	88	90	2.2	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	102	95	7.1	81	85	4.8	70 - 130	30	
1,1-Dichloroethane	ND	5.0	79	77	2.6	78	77	1.3	70 - 130	30	
1,1-Dichloroethene	ND	5.0	100	98	2.0	93	93	0.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	106	99	6.8	96	91	5.3	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	112	101	10.3	36	43	17.7	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	90	89	1.1	83	84	1.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	110	99	10.5	30	39	26.1	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	97	92	5.3	77	78	1.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	102	96	6.1	78	84	7.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	106	102	3.8	64	77	18.4	70 - 130	30	m
1,2-Dichlorobenzene	ND	5.0	102	93	9.2	55	65	16.7	70 - 130	30	m
1,2-Dichloroethane	ND	5.0	100	97	3.0	81	81	0.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	100	97	3.0	89	85	4.6	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	99	95	4.1	86	88	2.3	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	97	96	1.0	52	61	15.9	70 - 130	30	m
1,3-Dichloropropane	ND	5.0	101	99	2.0	75	83	10.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	103	95	8.1	47	57	19.2	70 - 130	30	m
2,2-Dichloropropane	ND	5.0	93	88	5.5	95	98	3.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	99	98	1.0	77	83	7.5	70 - 130	30	
2-Hexanone	ND	25	81	76	6.4	49	59	18.5	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	98	95	3.1	85	86	1.2	70 - 130	30	
4-Chlorotoluene	ND	5.0	97	95	2.1	58	69	17.3	70 - 130	30	m
4-Methyl-2-pentanone	ND	25	79	78	1.3	78	73	6.6	70 - 130	30	
Acetone	ND	10	74	68	8.5	91	87	4.5	70 - 130	30	l
Acrylonitrile	ND	5.0	67	64	4.6	69	63	9.1	70 - 130	30	l,m
Benzene	ND	1.0	103	98	5.0	92	89	3.3	70 - 130	30	
Bromobenzene	ND	5.0	96	96	0.0	61	68	10.9	70 - 130	30	m
Bromochloromethane	ND	5.0	94	87	7.7	75	80	6.5	70 - 130	30	
Bromodichloromethane	ND	5.0	102	98	4.0	91	88	3.4	70 - 130	30	
Bromoform	ND	5.0	118	115	2.6	80	91	12.9	70 - 130	30	
Bromomethane	ND	5.0	94	94	0.0	87	87	0.0	70 - 130	30	
Carbon Disulfide	ND	5.0	111	107	3.7	83	90	8.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	104	102	1.9	104	106	1.9	70 - 130	30	
Chlorobenzene	ND	5.0	100	99	1.0	69	78	12.2	70 - 130	30	m
Chloroethane	ND	5.0	81	82	1.2	76	83	8.8	70 - 130	30	
Chloroform	ND	5.0	94	90	4.3	87	86	1.2	70 - 130	30	
Chloromethane	ND	5.0	79	75	5.2	78	75	3.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	78	76	2.6	72	80	10.5	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ00337

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	104	100	3.9	68	69	1.5	70 - 130	30	m
Dibromochloromethane	ND	3.0	111	111	0.0	89	99	10.6	70 - 130	30	
Dibromomethane	ND	5.0	102	94	8.2	73	74	1.4	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	95	89	6.5	104	103	1.0	70 - 130	30	
Ethylbenzene	ND	1.0	102	99	3.0	76	88	14.6	70 - 130	30	
Hexachlorobutadiene	ND	5.0	113	106	6.4	76	77	1.3	70 - 130	30	
Isopropylbenzene	ND	1.0	96	97	1.0	94	95	1.1	70 - 130	30	
m&p-Xylene	ND	2.0	103	101	2.0	78	86	9.8	70 - 130	30	
Methyl ethyl ketone	ND	5.0	75	70	6.9	73	72	1.4	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	109	102	6.6	93	97	4.2	70 - 130	30	
Methylene chloride	ND	5.0	95	92	3.2	84	87	3.5	70 - 130	30	
Naphthalene	ND	5.0	106	103	2.9	34	43	23.4	70 - 130	30	m
n-Butylbenzene	ND	1.0	104	97	7.0	68	72	5.7	70 - 130	30	m
n-Propylbenzene	ND	1.0	100	93	7.3	82	85	3.6	70 - 130	30	
o-Xylene	ND	2.0	105	100	4.9	81	88	8.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	99	0.0	84	87	3.5	70 - 130	30	
sec-Butylbenzene	ND	1.0	100	102	2.0	94	96	2.1	70 - 130	30	
Styrene	ND	5.0	107	103	3.8	59	68	14.2	70 - 130	30	m
tert-Butylbenzene	ND	1.0	96	93	3.2	96	97	1.0	70 - 130	30	
Tetrachloroethene	ND	5.0	108	101	6.7	94	85	10.1	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	85	78	8.6	32	31	3.2	70 - 130	30	m
Toluene	ND	1.0	97	97	0.0	80	78	2.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	105	95	10.0	75	81	7.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	102	98	4.0	53	61	14.0	70 - 130	30	m
trans-1,4-dichloro-2-butene	ND	5.0	100	97	3.0	47	58	21.0	70 - 130	30	m
Trichloroethene	ND	5.0	108	99	8.7	89	90	1.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	92	93	1.1	95	97	2.1	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	96	9.9	102	104	1.9	70 - 130	30	
Vinyl chloride	ND	5.0	86	82	4.8	81	84	3.6	70 - 130	30	
% 1,2-dichlorobenzene-d4	95	%	97	96	1.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	92	%	102	102	0.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	94	%	97	95	2.1	97	96	1.0	70 - 130	30	
% Toluene-d8	97	%	97	98	1.0	100	97	3.0	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 401232 (mg/Kg), QC Sample No: BZ00301 (BZ00337)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	73	73	0.0	83	80	3.7	60 - 120	30	
% n-Pentacosane	72	%	58	58	0.0	69	68	1.5	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 401194 (ug/kg), QC Sample No: BZ00651 (BZ00337)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	66			57	62	8.4	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	59			49	52	5.9	30 - 130	30	
1,2-Dichlorobenzene	ND	180	52			43	46	6.7	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	62			59	62	5.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	49			41	43	4.8	30 - 130	30	
1,4-Dichlorobenzene	ND	230	51			42	44	4.7	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	72			67	72	7.2	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	69			64	68	6.1	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ00337

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dichlorophenol	ND	130	67			59	64	8.1	30 - 130	30	
2,4-Dimethylphenol	ND	230	57			55	60	8.7	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10			76	73	4.0	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	70			65	70	7.4	30 - 130	30	
2,6-Dinitrotoluene	ND	130	72			65	70	7.4	30 - 130	30	
2-Chloronaphthalene	ND	230	63			55	59	7.0	30 - 130	30	
2-Chlorophenol	ND	230	60			49	57	15.1	30 - 130	30	
2-Methylnaphthalene	ND	230	59			50	56	11.3	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	69			58	68	15.9	30 - 130	30	
2-Nitroaniline	ND	330	59			57	61	6.8	30 - 130	30	
2-Nitrophenol	ND	230	43			38	40	5.1	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	69			59	71	18.5	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	73			84	88	4.7	30 - 130	30	
3-Nitroaniline	ND	330	80			76	80	5.1	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	25			76	80	5.1	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	67			62	65	4.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	65			59	66	11.2	30 - 130	30	
4-Chloroaniline	ND	230	54			51	56	9.3	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	68			63	66	4.7	30 - 130	30	
4-Nitroaniline	ND	230	66			60	65	8.0	30 - 130	30	
4-Nitrophenol	ND	230	64			59	63	6.6	30 - 130	30	
Acenaphthene	ND	230	69			62	65	4.7	30 - 130	30	
Acenaphthylene	ND	130	63			56	59	5.2	30 - 130	30	
Acetophenone	ND	230	56			47	54	13.9	30 - 130	30	
Aniline	ND	330	49			44	52	16.7	30 - 130	30	
Anthracene	ND	230	71			64	68	6.1	30 - 130	30	
Benz(a)anthracene	ND	230	74			67	72	7.2	30 - 130	30	
Benzidine	ND	330	27			37	49	27.9	30 - 130	30	l
Benzo(a)pyrene	ND	130	71			65	69	6.0	30 - 130	30	
Benzo(b)fluoranthene	ND	160	75			68	72	5.7	30 - 130	30	
Benzo(ghi)perylene	ND	230	68			63	66	4.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	70			66	69	4.4	30 - 130	30	
Benzoic Acid	ND	330	<10			24	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	67			60	65	8.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	65			56	60	6.9	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	51			45	49	8.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	62			52	57	9.2	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	69			62	64	3.2	30 - 130	30	
Carbazole	ND	230	71			64	69	7.5	30 - 130	30	
Chrysene	ND	230	73			67	69	2.9	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	75			67	73	8.6	30 - 130	30	
Dibenzofuran	ND	230	64			60	64	6.5	30 - 130	30	
Diethyl phthalate	ND	230	61			57	60	5.1	30 - 130	30	
Dimethylphthalate	ND	230	64			58	62	6.7	30 - 130	30	
Di-n-butylphthalate	290	230	75			58	64	9.8	30 - 130	30	
Di-n-octylphthalate	ND	230	73			66	70	5.9	30 - 130	30	
Fluoranthene	ND	230	74			67	72	7.2	30 - 130	30	
Fluorene	ND	230	68			62	65	4.7	30 - 130	30	
Hexachlorobenzene	ND	130	54			50	54	7.7	30 - 130	30	
Hexachlorobutadiene	ND	230	51			42	43	2.4	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	37			27	39	36.4	30 - 130	30	m,r
Hexachloroethane	ND	130	46			37	39	5.3	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	73			65	73	11.6	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ00337

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Isophorone	ND	130	58			50	54	7.7	30 - 130	30	
Naphthalene	ND	230	58			50	52	3.9	30 - 130	30	
Nitrobenzene	ND	130	58			48	55	13.6	30 - 130	30	
N-Nitrosodimethylamine	ND	230	46			41	40	2.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	65			54	63	15.4	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	69			65	68	4.5	30 - 130	30	
Pentachloronitrobenzene	ND	230	60			53	55	3.7	30 - 130	30	
Pentachlorophenol	ND	230	45			56	57	1.8	30 - 130	30	
Phenanthrene	ND	130	69			63	66	4.7	30 - 130	30	
Phenol	ND	230	69			57	68	17.6	30 - 130	30	
Pyrene	ND	230	74			69	72	4.3	30 - 130	30	
Pyridine	ND	230	34			32	29	9.8	30 - 130	30	m
% 2,4,6-Tribromophenol	46	%	56			53	57	7.3	30 - 130	30	
% 2-Fluorobiphenyl	56	%	65			56	62	10.2	30 - 130	30	
% 2-Fluorophenol	45	%	55			45	52	14.4	30 - 130	30	
% Nitrobenzene-d5	48	%	56			47	56	17.5	30 - 130	30	
% Phenol-d5	53	%	64			53	65	20.3	30 - 130	30	
% Terphenyl-d14	64	%	71			66	69	4.4	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
September 20, 2017

Wednesday, September 20, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ00337 - TIGHE-DAS

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 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:*** Tighe & Bond

Project Location: SB-12 (20-22) ***Project Number:***

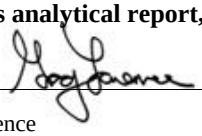
Laboratory Sample ID(s): BZ00337 ***Sampling Date(s):*** 9/13/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, September 20, 201

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

September 20, 2017

SDG I.D.: GBZ00337

Cyanide Narration

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

Instrument:

LACHAT 09/14/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/14/17

BZ00337

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 401257 (BY96711)

BZ00337

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

ETPH Narration

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

Instrument:

AU-FID84 09/14/17-1 Jeff Bucko, Chemist 09/14/17

BZ00337

The initial calibration (ETPH830I) 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 401232 (BZ00301)

BZ00337

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:

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

September 20, 2017

SDG I.D.: GBZ00337

Mercury Narration

MERLIN 09/19/17 06:21 Mike Arsenault, Chemist 09/19/17

BZ00337

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 401748 (BY99618)

BZ00337

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

ICP Metals Narration

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

Instrument:

ARCOS 09/14/17 07:16 Mike Arsenault, Chemist 09/14/17

BZ00337

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 401217 (BZ00019)

BZ00337

All LCS recoveries were within 75 - 125 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

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RCP Certification Report

September 20, 2017

SDG I.D.: GBZ00337

SVOA Narration

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

QC Batch 401194 (Samples: BZ00337): -----

The QC recovery is below the method criteria. A low bias for this analyte is likely. (Benzoic Acid)

A trace amount of an analyte was found in blank but was not reported in the sample(s), therefore no bias is suspected. (Di-n-butylphthalate)

The LCS is below the method criteria. The Batch MS/MSD recovery is acceptable. A slight low bias possible. (2,4-Dinitrophenol)

The LCS is below the lower range but within the method criteria. The Batch MS/MSD recovery is acceptable. A slight low bias possible. (4,6-Dinitro-2-methylphenol, Benzidine)

The MS/MSD RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (Hexachlorocyclopentadiene)

Instrument:

CHEM19 09/13/17-1 Damien Drobinski, Chemist 09/13/17

BZ00337

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0913_04A-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1), Hexachlorobenzene 0.085 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 401194 (BZ00651)

BZ00337

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(25%), Benzidine(27%), Benzoic Acid(<10%)
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%)

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 20, 2017

SDG I.D.: GBZ00337

VOA Narration

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

QC Batch 401614 (Samples: BZ00337): -----

The LCSD recovery is below the lower range but within the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Acetone)

The QC recoveries for one analyte is below the lower range but within the method criteria. A slight low bias is likely. (Acrylonitrile)

Instrument:

CHEM03 09/14/17-1 Jane Li, Chemist 09/14/17

BZ00337

Initial Calibration Verification (CHEM03/VT-L0902):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
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 (CHEM03/0914L02-VT-L0902):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Acrylonitrile 37%L (30%), Methyl Ethyl Ketone 34%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.

QC (Batch Specific):

Batch 401614 (BZ00013)

BZ00337

All LCS recoveries were within 70 - 130 with the following exceptions: Acrylonitrile(67%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(68%), Acrylonitrile(64%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.8C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 2.8 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Data Delivery:
[ ] Fax #:
[X] Email: LLewis@eversource.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rocky Hill Prop Site
Report to: Lynn Wigley
Invoice to: Tighe Bond
Phone #: 860-852-5047
Fax #:

Project P.O: 14-0755-Dept

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 9/13/17

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	VOC	SVOC	ETPH	VCP Metals	TCLP Cyanide	Soil VOA Vials [X] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
002337	SB-18 (20-22)	Soil	9/13/17	09:45	X	X	X	X	X										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Paradise	9/13/17	1621

Comments, Special Requirements or Regulations:
RUSH TAT 13-17 BD

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

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

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

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

State where samples were collected: CT

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

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

PHOENIX
Environmental Laboratories, Inc.

Tuesday, September 26, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP SITE
Sample ID#s: BZ04252 - BZ04255

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

September 26, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/18/17	12:30
Location Code:	TIGHE-DAS	Received by:	B	09/19/17	16:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14055044-01-01				

Laboratory Data

SDG ID: GBZ04252
Phoenix ID: BZ04252

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Arsenic	7.50	0.79	mg/Kg	1	09/21/17	MA	SW6010C
Barium	49.8	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Beryllium	0.41	0.32	mg/Kg	1	09/21/17	MA	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Chromium	17.9	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Copper	21.0	0.40	mg/kg	1	09/21/17	MA	SW6010C
Mercury	0.06	0.03	mg/Kg	1	09/20/17	MA	SW7471B
Nickel	9.67	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Lead	49.9	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	09/21/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	09/21/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/20/17	MA	SW6010C
SPLP Barium	0.016	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/20/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/20/17	MA	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/20/17	MA	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	09/21/17	MA	SW6010C
SPLP Metals Digestion	Completed				09/20/17	W/W	SW3005A
Vanadium	27.4	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Zinc	75.4	0.40	mg/Kg	1	09/21/17	MA	SW6010C
Percent Solid	85		%		09/19/17	I	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.51	0.59	mg/Kg	1	09/20/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/20/17	BC/VCK	SW3545A

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)

Phoenix I.D.: BZ04252

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Mercury Digestion	Completed				09/20/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/20/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/19/17	W	SW1312
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	11000	590	mg/Kg	5	09/21/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/21/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	09/21/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4000	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1-Dichloroethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1-Dichloroethene	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
1,1-Dichloropropene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2,4-Trimethylbenzene	89000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2-Dibromoethane	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	3100	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2-Dichloroethane	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
1,2-Dichloropropane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
1,3,5-Trimethylbenzene	23000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,3-Dichloropropane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
2,2-Dichloropropane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
2-Chlorotoluene	ND	2800	ug/Kg	1000	09/20/17	JLI	SW8260C
2-Hexanone	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
2-Isopropyltoluene	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
4-Chlorotoluene	ND	2800	ug/Kg	1000	09/20/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Acetone	ND	14000	ug/Kg	1000	09/20/17	JLI	SW8260C
Acrylonitrile	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
Benzene	55000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Bromobenzene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Bromochloromethane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Bromodichloromethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Bromoform	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Bromomethane	ND	2900	ug/Kg	1000	09/20/17	JLI	SW8260C
Carbon Disulfide	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Carbon tetrachloride	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Chlorobenzene	ND	2000	ug/Kg	1000	09/20/17	JLI	SW8260C
Chloroethane	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)

Phoenix I.D.: BZ04252

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroform	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
Chloromethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	1400	ug/Kg	1000	09/20/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Dibromochloromethane	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Dibromomethane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Dichlorodifluoromethane	ND	7000	ug/Kg	1000	09/20/17	JLI	SW8260C
Ethylbenzene	120000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Hexachlorobutadiene	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
Isopropylbenzene	15000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
m&p-Xylene	130000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	8000	ug/Kg	1000	09/20/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	2000	ug/Kg	1000	09/20/17	JLI	SW8260C
Methylene chloride	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Naphthalene	1000000	36000	ug/Kg	5000	09/20/17	JLI	SW8260C
n-Butylbenzene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
n-Propylbenzene	6800	6000	ug/Kg	1000	09/20/17	JLI	SW8260C
o-Xylene	63000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
p-Isopropyltoluene	7500	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
sec-Butylbenzene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Styrene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
tert-Butylbenzene	ND	7000	ug/Kg	1000	09/20/17	JLI	SW8260C
Tetrachloroethene	ND	1500	ug/Kg	1000	09/20/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	3600	ug/Kg	1000	09/20/17	JLI	SW8260C
Toluene	150000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Total Xylenes	193000	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	2000	ug/Kg	1000	09/20/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	15000	ug/Kg	1000	09/20/17	JLI	SW8260C
Trichloroethene	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
Trichlorofluoromethane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	7300	ug/Kg	1000	09/20/17	JLI	SW8260C
Vinyl chloride	ND	730	ug/Kg	1000	09/20/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1000	09/20/17	JLI	70 - 130 %
% Bromofluorobenzene	103		%	1000	09/20/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1000	09/20/17	JLI	70 - 130 %
% Toluene-d8	101		%	1000	09/20/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	3900	ug/Kg	20	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	4900	ug/Kg	20	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	4600	ug/Kg	20	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	6500	ug/Kg	20	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	4800	ug/Kg	20	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	5200	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	5700	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	4000	ug/Kg	20	09/21/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)

Phoenix I.D.: BZ04252

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-Dinitrophenol	ND	8100	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	6400	ug/Kg	20	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	5100	ug/Kg	20	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
2-Chlorophenol	ND	4600	ug/Kg	20	09/21/17	DD	SW8270D
2-Methylnaphthalene	540000	230000	ug/Kg	400	09/22/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	7600	ug/Kg	20	09/21/17	DD	SW8270D
2-Nitroaniline	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
2-Nitrophenol	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	16000	ug/Kg	20	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	7600	ug/Kg	20	09/21/17	DD	SW8270D
3-Nitroaniline	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	8100	ug/Kg	20	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	16000	ug/Kg	20	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
4-Chloroaniline	ND	7500	ug/Kg	20	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
4-Nitroaniline	ND	5400	ug/Kg	20	09/21/17	DD	SW8270D
4-Nitrophenol	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Acenaphthene	110000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Acenaphthylene	50000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Acetophenone	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Aniline	ND	6500	ug/Kg	20	09/21/17	DD	SW8270D
Anthracene	58000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benz(a)anthracene	29000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benzidine	ND	6500	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(a)pyrene	19000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(ghi)perylene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	14000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Benzoic acid	ND	20000	ug/Kg	20	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4500	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	4400	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4500	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	4700	ug/Kg	20	09/21/17	DD	SW8270D
Carbazole	ND	6500	ug/Kg	20	09/21/17	DD	SW8270D
Chrysene	33000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	5200	ug/Kg	20	09/21/17	DD	SW8270D
Dibenzofuran	12000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Diethyl phthalate	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Dimethylphthalate	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	16000	ug/Kg	20	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	4200	ug/Kg	20	09/21/17	DD	SW8270D
Fluoranthene	51000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Fluorene	51000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	5900	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	4900	ug/Kg	20	09/21/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)
Phoenix I.D.: BZ04252

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	4800	ug/Kg	20	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Isophorone	ND	4500	ug/Kg	20	09/21/17	DD	SW8270D
Naphthalene	950000	230000	ug/Kg	400	09/22/17	DD	SW8270D
Nitrobenzene	ND	5700	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4600	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	5200	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	6200	ug/Kg	20	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	4800	ug/Kg	20	09/21/17	DD	SW8270D
Pentachlorophenol	ND	6100	ug/Kg	20	09/21/17	DD	SW8270D
Phenanthrene	190000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Phenol	ND	11000	ug/Kg	20	09/21/17	DD	SW8270D
Pyrene	74000	11000	ug/Kg	20	09/21/17	DD	SW8270D
Pyridine	ND	4000	ug/Kg	20	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/18/17		SW5035A

Project ID: ROCKVILLE MGP SITE
Client ID: SB-03 (10-12)
Phoenix I.D.: BZ04252

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:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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.

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.
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Phyllis Shiller, Laboratory Director
September 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 26, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/18/17	11:50
Location Code:	TIGHE-DAS	Received by:	B	09/19/17	16:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14055044-01-01				

Laboratory Data

SDG ID: GBZ04252
Phoenix ID: BZ04253

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Arsenic	8.35	0.83	mg/Kg	1	09/21/17	MA	SW6010C
Barium	64.6	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Beryllium	0.37	0.33	mg/Kg	1	09/21/17	MA	SW6010C
Cadmium	0.73	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Chromium	18.1	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Copper	37.5	0.41	mg/kg	1	09/21/17	MA	SW6010C
Mercury	9.19	0.16	mg/Kg	1	09/20/17	MA	SW7471B
Nickel	9.90	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Lead	209	4.1	mg/Kg	10	09/21/17	MA	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	09/21/17	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	09/21/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Arsenic	0.024	0.004	mg/L	1	09/20/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/20/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/20/17	MA	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	09/20/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/20/17	MA	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	09/21/17	MA	SW6010C
SPLP Metals Digestion	Completed				09/20/17	W/W	SW3005A
Vanadium	25.9	0.41	mg/Kg	1	09/21/17	MA	SW6010C
Zinc	281	4.1	mg/Kg	10	09/21/17	MA	SW6010C
Percent Solid	73		%		09/19/17	I	SW846-%Solid
Total Cyanide (SW9010C Distill.)	7.64	0.62	mg/Kg	1	09/20/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/20/17	BC/VCK	SW3545A

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)

Phoenix I.D.: BZ04253

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Mercury Digestion	Completed				09/20/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/20/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/19/17	W	SW1312
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	52000	4000	mg/Kg	20	09/22/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	20	09/22/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	20	09/22/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1-Dichloroethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1-Dichloroethene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
1,1-Dichloropropene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2,4-Trimethylbenzene	300000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2-Dibromoethane	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2-Dichloroethane	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
1,2-Dichloropropane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
1,3,5-Trimethylbenzene	84000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	12000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,3-Dichloropropane	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
2,2-Dichloropropane	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
2-Chlorotoluene	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
2-Hexanone	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
2-Isopropyltoluene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
4-Chlorotoluene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Acetone	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Acrylonitrile	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
Benzene	1900000	460000	ug/Kg	50000	09/20/17	JLI	SW8260C
Bromobenzene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Bromochloromethane	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Bromodichloromethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Bromoform	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Bromomethane	ND	18000	ug/Kg	5000	09/20/17	JLI	SW8260C
Carbon Disulfide	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Carbon tetrachloride	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Chlorobenzene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
Chloroethane	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)

Phoenix I.D.: BZ04253

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroform	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
Chloromethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Dibromochloromethane	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Dibromomethane	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Dichlorodifluoromethane	ND	7000	ug/Kg	5000	09/20/17	JLI	SW8260C
Ethylbenzene	1400000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Hexachlorobutadiene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
Isopropylbenzene	38000	35000	ug/Kg	5000	09/20/17	JLI	SW8260C
m&p-Xylene	870000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Methylene chloride	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
Naphthalene	8500000	460000	ug/Kg	50000	09/20/17	JLI	SW8260C
n-Butylbenzene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
n-Propylbenzene	30000	28000	ug/Kg	5000	09/20/17	JLI	SW8260C
o-Xylene	390000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
p-Isopropyltoluene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
sec-Butylbenzene	ND	7000	ug/Kg	5000	09/20/17	JLI	SW8260C
Styrene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
tert-Butylbenzene	ND	7000	ug/Kg	5000	09/20/17	JLI	SW8260C
Tetrachloroethene	ND	9200	ug/Kg	5000	09/20/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	23000	ug/Kg	5000	09/20/17	JLI	SW8260C
Toluene	2000000	460000	ug/Kg	50000	09/20/17	JLI	SW8260C
Total Xylenes	1260000	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	46000	ug/Kg	5000	09/20/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	92000	ug/Kg	5000	09/20/17	JLI	SW8260C
Trichloroethene	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
Trichlorofluoromethane	ND	20000	ug/Kg	5000	09/20/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	20000	ug/Kg	5000	09/20/17	JLI	SW8260C
Vinyl chloride	ND	4600	ug/Kg	5000	09/20/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	5000	09/20/17	JLI	70 - 130 %
% Bromofluorobenzene	101		%	5000	09/20/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	5000	09/20/17	JLI	70 - 130 %
% Toluene-d8	101		%	5000	09/20/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	31000	ug/Kg	100	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	39000	ug/Kg	100	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	37000	ug/Kg	100	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	52000	ug/Kg	100	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	38000	ug/Kg	100	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	38000	ug/Kg	100	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	34000	ug/Kg	100	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	41000	ug/Kg	100	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	46000	ug/Kg	100	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	32000	ug/Kg	100	09/21/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)

Phoenix I.D.: BZ04253

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-Dinitrophenol	ND	65000	ug/Kg	100	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	51000	ug/Kg	100	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	41000	ug/Kg	100	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	37000	ug/Kg	100	09/21/17	DD	SW8270D
2-Chlorophenol	ND	37000	ug/Kg	100	09/21/17	DD	SW8270D
2-Methylnaphthalene	2200000	91000	ug/Kg	100	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	61000	ug/Kg	100	09/21/17	DD	SW8270D
2-Nitroaniline	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
2-Nitrophenol	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	130000	ug/Kg	100	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	61000	ug/Kg	100	09/21/17	DD	SW8270D
3-Nitroaniline	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	65000	ug/Kg	100	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	130000	ug/Kg	100	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	46000	ug/Kg	100	09/21/17	DD	SW8270D
4-Chloroaniline	ND	60000	ug/Kg	100	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
4-Nitroaniline	ND	43000	ug/Kg	100	09/21/17	DD	SW8270D
4-Nitrophenol	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
Acenaphthene	570000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Acenaphthylene	730000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Acetophenone	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
Aniline	ND	52000	ug/Kg	100	09/21/17	DD	SW8270D
Anthracene	520000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benz(a)anthracene	270000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzidine	ND	52000	ug/Kg	100	09/21/17	DD	SW8270D
Benzo(a)pyrene	220000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	140000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzo(ghi)perylene	110000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	150000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzoic acid	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	33000	ug/Kg	100	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	36000	ug/Kg	100	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	35000	ug/Kg	100	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	36000	ug/Kg	100	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	37000	ug/Kg	100	09/21/17	DD	SW8270D
Carbazole	ND	52000	ug/Kg	100	09/21/17	DD	SW8270D
Chrysene	280000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	42000	ug/Kg	100	09/21/17	DD	SW8270D
Dibenzofuran	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
Diethyl phthalate	ND	41000	ug/Kg	100	09/21/17	DD	SW8270D
Dimethylphthalate	ND	40000	ug/Kg	100	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	130000	ug/Kg	100	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	33000	ug/Kg	100	09/21/17	DD	SW8270D
Fluoranthene	560000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Fluorene	660000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	91000	ug/Kg	100	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	47000	ug/Kg	100	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	40000	ug/Kg	100	09/21/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)

Phoenix I.D.: BZ04253

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	39000	ug/Kg	100	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	91000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Isophorone	ND	36000	ug/Kg	100	09/21/17	DD	SW8270D
Naphthalene	7000000	910000	ug/Kg	1000	09/22/17	DD	SW8270D
Nitrobenzene	ND	45000	ug/Kg	100	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	37000	ug/Kg	100	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	42000	ug/Kg	100	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	50000	ug/Kg	100	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	39000	ug/Kg	100	09/21/17	DD	SW8270D
Pentachlorophenol	ND	49000	ug/Kg	100	09/21/17	DD	SW8270D
Phenanthrene	1700000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Phenol	ND	80000	ug/Kg	100	09/21/17	DD	SW8270D
Pyrene	790000	91000	ug/Kg	100	09/21/17	DD	SW8270D
Pyridine	ND	32000	ug/Kg	100	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	100	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	100	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	100	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	100	09/21/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	100	09/21/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	100	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/18/17		SW5035A

Project ID: ROCKVILLE MGP SITE
Client ID: SB-06 (13-14)
Phoenix I.D.: BZ04253

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:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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:
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.

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.
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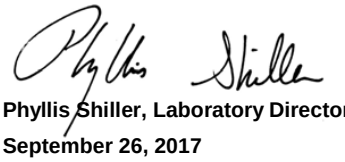

Phyllis Shiller, Laboratory Director
September 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 26, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/18/17	14:00
Location Code:	TIGHE-DAS	Received by:	B	09/19/17	16:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14055044-01-01				

Laboratory Data

SDG ID: GBZ04252
Phoenix ID: BZ04254

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		09/19/17	I	SW846-%Solid
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	4400	ug/Kg	50	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	5500	ug/Kg	50	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	5200	ug/Kg	50	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	7300	ug/Kg	50	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	12000	ug/Kg	50	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	5400	ug/Kg	50	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	5900	ug/Kg	50	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	6400	ug/Kg	50	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	4500	ug/Kg	50	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	9100	ug/Kg	50	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	7200	ug/Kg	50	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	5800	ug/Kg	50	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	11000	ug/Kg	50	09/21/17	DD	SW8270D
2-Chlorophenol	ND	5200	ug/Kg	50	09/21/17	DD	SW8270D
2-Methylnaphthalene	ND	5500	ug/Kg	50	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	8600	ug/Kg	50	09/21/17	DD	SW8270D
2-Nitroaniline	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
2-Nitrophenol	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	18000	ug/Kg	50	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	8600	ug/Kg	50	09/21/17	DD	SW8270D
3-Nitroaniline	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	9100	ug/Kg	50	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	18000	ug/Kg	50	09/21/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (2-4)

Phoenix I.D.: BZ04254

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
4-Chloroaniline	ND	8500	ug/Kg	50	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
4-Nitroaniline	ND	6100	ug/Kg	50	09/21/17	DD	SW8270D
4-Nitrophenol	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Acenaphthene	ND	8400	ug/Kg	50	09/21/17	DD	SW8270D
Acenaphthylene	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Acetophenone	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Aniline	ND	7300	ug/Kg	50	09/21/17	DD	SW8270D
Anthracene	16000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benz(a)anthracene	50000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benzidine	ND	7300	ug/Kg	50	09/21/17	DD	SW8270D
Benzo(a)pyrene	44000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	38000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benzo(ghi)perylene	28000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	39000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Benzoic acid	ND	20000	ug/Kg	50	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	5100	ug/Kg	50	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	4900	ug/Kg	50	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	5100	ug/Kg	50	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	5300	ug/Kg	50	09/21/17	DD	SW8270D
Carbazole	ND	18000	ug/Kg	50	09/21/17	DD	SW8270D
Chrysene	45000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Dibenzofuran	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Diethyl phthalate	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Dimethylphthalate	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	18000	ug/Kg	50	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	4700	ug/Kg	50	09/21/17	DD	SW8270D
Fluoranthene	66000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Fluorene	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	6600	ug/Kg	50	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	5600	ug/Kg	50	09/21/17	DD	SW8270D
Hexachloroethane	ND	5500	ug/Kg	50	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	27000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Isophorone	ND	5100	ug/Kg	50	09/21/17	DD	SW8270D
Naphthalene	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Nitrobenzene	ND	6400	ug/Kg	50	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	5200	ug/Kg	50	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	5900	ug/Kg	50	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	7000	ug/Kg	50	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	5500	ug/Kg	50	09/21/17	DD	SW8270D
Pentachlorophenol	ND	6900	ug/Kg	50	09/21/17	DD	SW8270D
Phenanthrene	45000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Phenol	ND	13000	ug/Kg	50	09/21/17	DD	SW8270D
Pyrene	69000	13000	ug/Kg	50	09/21/17	DD	SW8270D
Pyridine	ND	4500	ug/Kg	50	09/21/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (2-4)

Phoenix I.D.: BZ04254

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	50	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	50	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	50	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	50	09/21/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	50	09/21/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	50	09/21/17	DD	30 - 130 %

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

Comments:

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:
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.
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Phyllis Shiller, Laboratory Director
September 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

September 26, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/18/17	14:35
Location Code:	TIGHE-DAS	Received by:	B	09/19/17	16:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14055044-01-01				

Laboratory Data

SDG ID: GBZ04252
Phoenix ID: BZ04255

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (9-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Arsenic	2.29	0.73	mg/Kg	1	09/21/17	MA	SW6010C
Barium	28.7	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Beryllium	0.50	0.29	mg/Kg	1	09/21/17	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Chromium	16.5	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Copper	11.1	0.37	mg/kg	1	09/21/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/20/17	MA	SW7471B
Nickel	9.23	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Lead	2.57	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	09/21/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/21/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	09/21/17	MA	SW6010C
Vanadium	38.6	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Zinc	32.8	0.37	mg/Kg	1	09/21/17	MA	SW6010C
Percent Solid	91		%		09/19/17	I	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	09/20/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/20/17	BC/VCK	SW3545A
Mercury Digestion	Completed				09/20/17	W/W	SW7471B
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	09/21/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/21/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	09/21/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (9-10)

Phoenix I.D.: BZ04255

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	09/20/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	09/20/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
2-Chlorotoluene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	09/20/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
4-Chlorotoluene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	09/20/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	09/20/17	JLI	SW8260C
Acrylonitrile	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Benzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Bromobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Bromoform	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Bromomethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Chloroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Chloroform	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Chloromethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	09/20/17	JLI	SW8260C
Dibromomethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (9-10)

Phoenix I.D.: BZ04255

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	09/20/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	09/20/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	09/20/17	JLI	SW8260C
Naphthalene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
o-Xylene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Styrene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	09/20/17	JLI	SW8260C
Toluene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Total Xylenes	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	09/20/17	JLI	SW8260C
Trichloroethene	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/Kg	1	09/20/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	09/20/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	09/20/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	09/20/17	JLI	70 - 130 %
% Toluene-d8	101		%	1	09/20/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	09/21/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (9-10)

Phoenix I.D.: BZ04255

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Aniline	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Anthracene	280	260	ug/Kg	1	09/21/17	DD	SW8270D
Benz(a)anthracene	650	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(a)pyrene	530	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	460	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(ghi)perylene	390	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	520	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Carbazole	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Chrysene	580	260	ug/Kg	1	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Fluoranthene	1000	260	ug/Kg	1	09/21/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	330	260	ug/Kg	1	09/21/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	09/21/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	09/21/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-08 (9-10)

Phoenix I.D.: BZ04255

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	690	260	ug/Kg	1	09/21/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Pyrene	960	260	ug/Kg	1	09/21/17	DD	SW8270D
Pyridine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	65		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	60		%	1	09/21/17	DD	30 - 130 %
% Phenol-d5	59		%	1	09/21/17	DD	30 - 130 %
% Terphenyl-d14	65		%	1	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/18/17		SW5035A

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
September 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

September 26, 2017

QA/QC Data

SDG I.D.: GBZ04252

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 402112 (mg/L), QC Sample No: BZ03349 (BZ04252, BZ04253)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	100			91.7			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 402226 (mg/kg), QC Sample No: BZ04002 (BZ04252, BZ04253, BZ04255)														
ICP Metals - Soil														
Antimony	BRL	3.3	<3.4	<3.6	NC	93.7			94.3			75 - 125	30	
Arsenic	BRL	0.67	3.37	3.70	NC	76.4			92.0			75 - 125	30	
Barium	BRL	0.33	26.8	98.3	114	79.8			107			75 - 125	30	r
Beryllium	BRL	0.27	0.40	0.36	NC	81.9			101			75 - 125	30	
Cadmium	BRL	0.33	<0.34	<0.36	NC	79.9			98.7			75 - 125	30	
Chromium	BRL	0.33	14.4	12.7	12.5	87.7			101			75 - 125	30	
Copper	BRL	0.33	22.1	19.7	11.5	86.2			112			75 - 125	30	
Lead	BRL	0.33	12.2	11.9	2.50	81.2			102			75 - 125	30	
Nickel	BRL	0.33	12.4	10.4	17.5	85.3			98.8			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.4	NC	76.4			77.1			75 - 125	30	
Silver	BRL	0.33	<0.34	<0.36	NC	81.1			102			75 - 125	30	
Thallium	BRL	3.0	<3.1	<3.2	NC	85.3			103			75 - 125	30	
Vanadium	BRL	0.33	25.1	24.4	2.80	89.5			101			75 - 125	30	
Zinc	BRL	0.33	37.2	37.1	0.30	81.0			96.0			75 - 125	30	
QA/QC Batch 402141 (mg/kg), QC Sample No: BZ04002 (BZ04252, BZ04253, BZ04255)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	84.0	82.2	2.2	81.5			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 402117 (mg/L), QC Sample No: BZ04253 (BZ04252, BZ04253)														
ICP Metals - SPLP Extraction														
Arsenic	BRL	0.004	0.024	0.023	4.30	104			104			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	105			104			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	107			102			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	103			101			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	103			101			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	105			103			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.8			98.7			75 - 125	20	

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

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QA/QC Report

September 26, 2017

QA/QC Data

SDG I.D.: GBZ04252

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 402068 (mg/Kg), QC Sample No: BZ03718 50X (BZ04252, BZ04253, BZ04255)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.51	NC	97.6			108			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

September 26, 2017

QA/QC Data

SDG I.D.: GBZ04252

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402119 (ug/kg), QC Sample No: BZ03619 (BZ04252 (1000X) , BZ04253 (5000X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	103	103	0.0	87	98	11.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	102	102	0.0	95	103	8.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	102	105	2.9	81	89	9.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	99	101	2.0	90	97	7.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	102	101	1.0	97	104	7.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	102	102	0.0	94	102	8.2	70 - 130	30	
1,1-Dichloropropene	ND	5.0	102	102	0.0	93	102	9.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	97	98	1.0	49	58	16.8	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	100	105	4.9	97	106	8.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	94	95	1.1	49	60	20.2	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	96	96	0.0	63	77	20.0	70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	5.0	102	106	3.8	89	98	9.6	70 - 130	30	
1,2-Dibromoethane	ND	5.0	98	100	2.0	91	98	7.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	98	97	1.0	71	84	16.8	70 - 130	30	
1,2-Dichloroethane	ND	5.0	99	100	1.0	95	102	7.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	101	102	1.0	94	101	7.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	98	98	0.0	75	90	18.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	99	98	1.0	72	87	18.9	70 - 130	30	
1,3-Dichloropropane	ND	5.0	98	99	1.0	92	98	6.3	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	97	0.0	70	85	19.4	70 - 130	30	
2,2-Dichloropropane	ND	5.0	109	112	2.7	98	107	8.8	70 - 130	30	
2-Chlorotoluene	ND	5.0	99	99	0.0	80	96	18.2	70 - 130	30	
2-Hexanone	ND	25	95	99	4.1	56	51	9.3	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	102	103	1.0	75	92	20.4	70 - 130	30	
4-Chlorotoluene	ND	5.0	98	98	0.0	76	92	19.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	99	104	4.9	76	72	5.4	70 - 130	30	
Acetone	ND	10	78	84	7.4	73	73	0.0	70 - 130	30	
Acrylonitrile	ND	5.0	102	107	4.8	94	95	1.1	70 - 130	30	
Benzene	ND	1.0	100	101	1.0	93	101	8.2	70 - 130	30	
Bromobenzene	ND	5.0	100	100	0.0	84	98	15.4	70 - 130	30	
Bromochloromethane	ND	5.0	103	103	0.0	93	100	7.3	70 - 130	30	
Bromodichloromethane	ND	5.0	102	102	0.0	91	100	9.4	70 - 130	30	
Bromoform	ND	5.0	103	105	1.9	80	90	11.8	70 - 130	30	
Bromomethane	ND	5.0	116	116	0.0	99	108	8.7	70 - 130	30	
Carbon Disulfide	ND	5.0	113	112	0.9	95	105	10.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	108	106	1.9	90	100	10.5	70 - 130	30	
Chlorobenzene	ND	5.0	99	99	0.0	84	94	11.2	70 - 130	30	
Chloroethane	ND	5.0	119	117	1.7	105	114	8.2	70 - 130	30	
Chloroform	ND	5.0	100	100	0.0	93	100	7.3	70 - 130	30	
Chloromethane	ND	5.0	109	108	0.9	101	109	7.6	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	100	100	0.0	93	100	7.3	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ04252

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	103	104	1.0	87	96	9.8	70 - 130	30	
Dibromochloromethane	ND	3.0	106	107	0.9	89	100	11.6	70 - 130	30	
Dibromomethane	ND	5.0	97	100	3.0	91	96	5.3	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	121	119	1.7	111	120	7.8	70 - 130	30	
Ethylbenzene	ND	1.0	99	98	1.0	84	95	12.3	70 - 130	30	
Hexachlorobutadiene	ND	5.0	103	104	1.0	46	56	19.6	70 - 130	30	m
Isopropylbenzene	ND	1.0	102	100	2.0	84	101	18.4	70 - 130	30	
m&p-Xylene	ND	2.0	98	97	1.0	78	89	13.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	94	99	5.2	83	85	2.4	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	101	102	1.0	96	101	5.1	70 - 130	30	
Methylene chloride	ND	5.0	89	89	0.0	82	89	8.2	70 - 130	30	
n-Butylbenzene	ND	1.0	99	98	1.0	58	73	22.9	70 - 130	30	m
n-Propylbenzene	ND	1.0	100	99	1.0	78	94	18.6	70 - 130	30	
o-Xylene	ND	2.0	101	100	1.0	85	95	11.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	100	99	1.0	62	75	19.0	70 - 130	30	m
sec-Butylbenzene	ND	1.0	104	104	0.0	75	92	20.4	70 - 130	30	
Styrene	ND	5.0	100	99	1.0	78	87	10.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	100	100	0.0	79	96	19.4	70 - 130	30	
Tetrachloroethene	ND	5.0	101	101	0.0	86	95	9.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	97	102	5.0	97	96	1.0	70 - 130	30	
Toluene	ND	1.0	100	100	0.0	89	98	9.6	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	99	98	1.0	89	97	8.6	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	100	103	3.0	83	90	8.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	105	108	2.8	79	87	9.6	70 - 130	30	
Trichloroethene	ND	5.0	100	101	1.0	101	111	9.4	70 - 130	30	
Trichlorofluoromethane	ND	5.0	110	108	1.8	98	106	7.8	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	105	0.9	93	106	13.1	70 - 130	30	
Vinyl chloride	ND	5.0	111	109	1.8	102	110	7.5	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0	99	98	1.0	70 - 130	30	
% Bromofluorobenzene	98	%	99	100	1.0	101	99	2.0	70 - 130	30	
% Dibromofluoromethane	101	%	101	102	1.0	100	100	0.0	70 - 130	30	
% Toluene-d8	101	%	100	101	1.0	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 402182 (ug/kg), QC Sample No: BZ03955 (BZ04252, BZ04253, BZ04254, BZ04255)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	67		52	54	3.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	64		47	49	4.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	62		43	45	4.5	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	71		63	61	3.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	58		40	41	2.5	30 - 130	30	
1,4-Dichlorobenzene	ND	230	60		42	43	2.4	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	72		66	61	7.9	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	70		62	59	5.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	76		61	62	1.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	71		58	60	3.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10		29	13	76.2	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	76		69	64	7.5	30 - 130	30	
2,6-Dinitrotoluene	ND	130	72		60	59	1.7	30 - 130	30	
2-Chloronaphthalene	ND	230	70		58	57	1.7	30 - 130	30	
2-Chlorophenol	ND	230	65		47	50	6.2	30 - 130	30	
2-Methylnaphthalene	ND	230	66		51	53	3.8	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ04252

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylphenol (o-cresol)	ND	230	72			54	58	7.1	30 - 130	30	
2-Nitroaniline	ND	330	95			86	82	4.8	30 - 130	30	
2-Nitrophenol	ND	230	57			43	43	0.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	72			54	56	3.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82			82	76	7.6	30 - 130	30	
3-Nitroaniline	ND	330	88			76	74	2.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10			49	32	42.0	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	70			62	62	0.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	74			64	63	1.6	30 - 130	30	
4-Chloroaniline	ND	230	72			57	60	5.1	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	69			60	59	1.7	30 - 130	30	
4-Nitroaniline	ND	230	72			63	61	3.2	30 - 130	30	
4-Nitrophenol	ND	230	58			60	53	12.4	30 - 130	30	
Acenaphthene	ND	230	77			65	64	1.6	30 - 130	30	
Acenaphthylene	ND	130	66			59	56	5.2	30 - 130	30	
Acetophenone	ND	230	66			45	49	8.5	30 - 130	30	
Aniline	ND	330	67			47	50	6.2	30 - 130	30	
Anthracene	ND	230	73			66	66	0.0	30 - 130	30	
Benz(a)anthracene	ND	230	71			64	61	4.8	30 - 130	30	
Benzidine	ND	330	36			46	53	14.1	30 - 130	30	
Benzo(a)pyrene	ND	130	72			63	61	3.2	30 - 130	30	
Benzo(b)fluoranthene	ND	160	85			74	71	4.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	67			54	56	3.6	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81			72	71	1.4	30 - 130	30	
Benzoic Acid	ND	330	<10			21	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	82			77	74	4.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	74			55	57	3.6	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	64			44	46	4.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	70			48	51	6.1	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	84			82	75	8.9	30 - 130	30	
Carbazole	ND	230	77			69	69	0.0	30 - 130	30	
Chrysene	ND	230	73			67	65	3.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	71			57	60	5.1	30 - 130	30	
Dibenzofuran	ND	230	72			61	60	1.7	30 - 130	30	
Diethyl phthalate	ND	230	73			64	62	3.2	30 - 130	30	
Dimethylphthalate	ND	230	72			64	61	4.8	30 - 130	30	
Di-n-butylphthalate	ND	670	75			65	65	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	79			75	70	6.9	30 - 130	30	
Fluoranthene	ND	230	68			57	59	3.4	30 - 130	30	
Fluorene	ND	230	73			64	62	3.2	30 - 130	30	
Hexachlorobenzene	ND	130	67			64	62	3.2	30 - 130	30	
Hexachlorobutadiene	ND	230	62			45	45	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	56			25	30	18.2	30 - 130	30	m
Hexachloroethane	ND	130	59			39	39	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67			55	55	0.0	30 - 130	30	
Isophorone	ND	130	67			52	54	3.8	30 - 130	30	
Naphthalene	ND	230	66			49	51	4.0	30 - 130	30	
Nitrobenzene	ND	130	68			47	50	6.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	31			23	24	4.3	30 - 130	30	m
N-Nitrosodi-n-propylamine	ND	130	74			51	53	3.8	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75			67	64	4.6	30 - 130	30	
Pentachloronitrobenzene	ND	230	64			59	58	1.7	30 - 130	30	
Pentachlorophenol	ND	230	39			62	49	23.4	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ04252

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Phenanthrene	ND	130	72			64	63	1.6	30 - 130	30	
Phenol	ND	230	73			56	59	5.2	30 - 130	30	
Pyrene	ND	230	69			57	60	5.1	30 - 130	30	
Pyridine	ND	230	24			17	19	11.1	30 - 130	30	l,m
% 2,4,6-Tribromophenol	65	%	59			57	57	0.0	30 - 130	30	
% 2-Fluorobiphenyl	77	%	72			57	57	0.0	30 - 130	30	
% 2-Fluorophenol	59	%	54			41	45	9.3	30 - 130	30	
% Nitrobenzene-d5	70	%	67			45	50	10.5	30 - 130	30	
% Phenol-d5	74	%	66			48	54	11.8	30 - 130	30	
% Terphenyl-d14	75	%	68			53	59	10.7	30 - 130	30	

Comment:

LCSD not reported for this batch.

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

QA/QC Batch 402425 (ug/kg), QC Sample No: BZ04359 (BZ04252 (5000X) , BZ04253 (50000X) , BZ04255)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	96	95	1.0	84	89	5.8	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	97	96	1.0	93	97	4.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	95	3.1	97	99	2.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	96	95	1.0	93	96	3.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	95	95	0.0	98	103	5.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	97	95	2.1	95	99	4.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	97	97	0.0	101	105	3.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	99	99	0.0	98	102	4.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	103	99	4.0	96	99	3.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	101	98	3.0	98	103	5.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	98	98	0.0	96	101	5.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	103	98	5.0	84	85	1.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	98	95	3.1	93	97	4.2	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	95	95	0.0	97	100	3.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	97	95	2.1	98	103	5.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	96	96	0.0	96	103	7.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	98	99	1.0	98	103	5.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	98	97	1.0	98	103	5.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	96	94	2.1	92	98	6.3	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	96	97	1.0	97	101	4.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	101	101	0.0	100	99	1.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	97	96	1.0	97	103	6.0	70 - 130	30	
2-Hexanone	ND	25	112	105	6.5	91	93	2.2	70 - 130	30	
2-Isopropyltoluene	ND	5.0	110	110	0.0	101	106	4.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	98	98	0.0	97	102	5.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	110	105	4.7	94	95	1.1	70 - 130	30	
Acetone	ND	10	103	96	7.0	69	69	0.0	70 - 130	30	m
Acrylonitrile	ND	5.0	117	108	8.0	99	97	2.0	70 - 130	30	
Benzene	ND	1.0	96	95	1.0	98	103	5.0	70 - 130	30	
Bromobenzene	ND	5.0	98	97	1.0	97	102	5.0	70 - 130	30	
Bromochloromethane	ND	5.0	97	96	1.0	95	100	5.1	70 - 130	30	
Bromodichloromethane	ND	5.0	96	95	1.0	89	94	5.5	70 - 130	30	
Bromoform	ND	5.0	98	95	3.1	72	75	4.1	70 - 130	30	
Bromomethane	ND	5.0	119	118	0.8	65	66	1.5	70 - 130	30	m
Carbon Disulfide	ND	5.0	106	105	0.9	101	105	3.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	97	97	0.0	79	83	4.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ04252

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chlorobenzene	ND	5.0	95	95	0.0	95	102	7.1	70 - 130	30	
Chloroethane	ND	5.0	122	122	0.0	24	24	0.0	70 - 130	30	m
Chloroform	ND	5.0	95	94	1.1	94	98	4.2	70 - 130	30	
Chloromethane	ND	5.0	116	114	1.7	99	99	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	96	95	1.0	95	100	5.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	98	97	1.0	92	97	5.3	70 - 130	30	
Dibromochloromethane	ND	3.0	97	96	1.0	84	87	3.5	70 - 130	30	
Dibromomethane	ND	5.0	96	93	3.2	93	97	4.2	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	118	119	0.8	107	109	1.9	70 - 130	30	
Ethylbenzene	ND	1.0	96	95	1.0	96	103	7.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	101	102	1.0	105	110	4.7	70 - 130	30	
Isopropylbenzene	ND	1.0	99	100	1.0	99	104	4.9	70 - 130	30	
m&p-Xylene	ND	2.0	96	95	1.0	96	102	6.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	104	99	4.9	92	92	0.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	106	103	2.9	93	96	3.2	70 - 130	30	
Methylene chloride	ND	5.0	89	87	2.3	84	86	2.4	70 - 130	30	
Naphthalene	ND	5.0	103	100	3.0	99	101	2.0	70 - 130	30	
n-Butylbenzene	ND	1.0	99	101	2.0	99	104	4.9	70 - 130	30	
n-Propylbenzene	ND	1.0	97	98	1.0	97	103	6.0	70 - 130	30	
o-Xylene	ND	2.0	97	96	1.0	98	104	5.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	100	99	1.0	99	105	5.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	98	98	0.0	103	108	4.7	70 - 130	30	
Styrene	ND	5.0	97	96	1.0	96	102	6.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	98	98	0.0	98	103	5.0	70 - 130	30	
Tetrachloroethene	ND	5.0	98	98	0.0	99	104	4.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	110	106	3.7	93	92	1.1	70 - 130	30	
Toluene	ND	1.0	96	95	1.0	98	101	3.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	96	93	3.2	90	94	4.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	99	98	1.0	87	91	4.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	117	112	4.4	80	81	1.2	70 - 130	30	
Trichloroethene	ND	5.0	96	96	0.0	98	103	5.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	121	119	1.7	21	21	0.0	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	111	111	0.0	98	104	5.9	70 - 130	30	
Vinyl chloride	ND	5.0	119	117	1.7	90	90	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	101	101	0.0	100	99	1.0	70 - 130	30	
% Bromofluorobenzene	100	%	101	100	1.0	103	102	1.0	70 - 130	30	
% Dibromofluoromethane	100	%	102	100	2.0	98	97	1.0	70 - 130	30	
% Toluene-d8	101	%	99	100	1.0	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 402207 (mg/Kg), QC Sample No: BZ05320 (BZ04252, BZ04253, BZ04255)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	94	100	6.2	121	102	17.0	60 - 120	30	
% n-Pentacosane	83	%	84	80	4.9	100	80	22.2	50 - 150	30	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

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.

QA/QC Data

SDG I.D.: GBZ04252

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

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

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



Phyllis Shiller, Laboratory Director
September 26, 2017

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04252	$8260MAR	Total Xylenes	CT / RSR GA,GAA (mg/kg) / Volatiles	193000	7300	19500	19500	ug/Kg
BZ04252	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	1500	820	820	ug/Kg
BZ04252	$8260MAR	1,2-Dibromoethane	CT / RSR DEC I/C (mg/kg) / Volatiles	ND	730	67	67	ug/Kg
BZ04252	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	90	90	ug/Kg
BZ04252	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	730	320	320	ug/Kg
BZ04252	$8260MAR	Benzene	CT / RSR DEC RES (mg/kg) / Volatiles	55000	7300	21000	21000	ug/Kg
BZ04252	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	730	7	7	ug/Kg
BZ04252	$8260MAR	sec-Butylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	7000	7000	ug/Kg
BZ04252	$8260MAR	n-Propylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	6800	6000	1000	1000	ug/Kg
BZ04252	$8260MAR	n-Butylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	7000	7000	ug/Kg
BZ04252	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	3600	80	80	ug/Kg
BZ04252	$8260MAR	Hexachlorobutadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	730	200	200	ug/Kg
BZ04252	$8260MAR	Chloromethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	1500	360	360	ug/Kg
BZ04252	$8260MAR	Chloroethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	730	150	150	ug/Kg
BZ04252	$8260MAR	Carbon Disulfide	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	1500	800	800	ug/Kg
BZ04252	$8260MAR	Bromomethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	2900	70	70	ug/Kg
BZ04252	$8260MAR	Bromodichloromethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	1500	20	20	ug/Kg
BZ04252	$8260MAR	Isopropylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	15000	7300	500	500	ug/Kg
BZ04252	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	89000	7300	2800	2800	ug/Kg
BZ04252	$8260MAR	2-Isopropyltoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	730	500	500	ug/Kg
BZ04252	$8260MAR	1,2,4-Trichlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	1500	1400	1400	ug/Kg
BZ04252	$8260MAR	2-Hexanone	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	700	700	ug/Kg
BZ04252	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	1500	5	5	ug/Kg
BZ04252	$8260MAR	1,3,5-Trimethylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	23000	7300	2800	2800	ug/Kg
BZ04252	$8260MAR	Naphthalene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1000000	36000	5600	5600	ug/Kg
BZ04252	$8260MAR	1,1,2-Trichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	100	100	ug/Kg
BZ04252	$8260MAR	1,1-Dichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	140	140	ug/Kg
BZ04252	$8260MAR	Styrene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	7300	2000	2000	ug/Kg
BZ04252	$8260MAR	4-Methyl-2-pentanone	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	7300	7000	7000	ug/Kg
BZ04252	$8260MAR	Ethylbenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	120000	7300	10100	10100	ug/Kg
BZ04252	$8260MAR	Tetrachloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	100	100	ug/Kg
BZ04252	$8260MAR	Trichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	100	100	ug/Kg
BZ04252	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	10	10	ug/Kg
BZ04252	$8260MAR	Vinyl chloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	40	40	ug/Kg
BZ04252	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	20	20	ug/Kg
BZ04252	$8260MAR	1,1-Dichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	1400	1400	ug/Kg
BZ04252	$8260MAR	Dibromochloromethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	10	10	ug/Kg
BZ04252	$8260MAR	1,2-Dibromoethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	10	10	ug/Kg
BZ04252	$8260MAR	Chloroform	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	120	120	ug/Kg
BZ04252	$8260MAR	1,2-Dichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	20	20	ug/Kg
BZ04252	$8260MAR	Carbon tetrachloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	100	100	ug/Kg
BZ04252	$8260MAR	1,2-Dichloropropane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	100	100	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04252	$8260MAR	Bromoform	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	1500	80	80	ug/Kg
BZ04252	$8260MAR	Benzene	CT / RSR GA,GAA (mg/kg) / Volatiles	55000	7300	20	20	ug/Kg
BZ04252	$8260MAR	Acrylonitrile	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	730	10	10	ug/Kg
BZ04252	$8260MAR	Toluene	CT / RSR GA,GAA (mg/kg) / Volatiles	150000	7300	20000	20000	ug/Kg
BZ04252	$8260MAR	Methylene chloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	7300	100	100	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	5200	820	820	ug/Kg
BZ04252	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ04252	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	11000	7800	7800	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	4600	360	360	ug/Kg
BZ04252	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	Dibenzofuran	CT / RSR DEC I/C (mg/kg) / Semivolatiles	12000	11000	3600	3600	ug/Kg
BZ04252	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	ND	11000	7800	7800	ug/Kg
BZ04252	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	19000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	29000	11000	7800	7800	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5200	200	200	ug/Kg
BZ04252	$8270-SMR	Nitrobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5700	4000	4000	ug/Kg
BZ04252	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ04252	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7500	3100	3100	ug/Kg
BZ04252	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	11000	8400	8400	ug/Kg
BZ04252	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	4600	200	200	ug/Kg
BZ04252	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6500	770	770	ug/Kg
BZ04252	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5100	900	900	ug/Kg
BZ04252	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7600	1400	1400	ug/Kg
BZ04252	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6400	900	900	ug/Kg
BZ04252	$8270-SMR	2-Methylnaphthalene	CT / RSR DEC RES (mg/kg) / APS Organics	540000	230000	270000	270000	ug/Kg
BZ04252	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	29000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	19000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	14000	11000	8400	8400	ug/Kg
BZ04252	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	4400	1000	1000	ug/Kg
BZ04252	$8270-SMR	Pentachlorophenol	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	6100	5100	5100	ug/Kg
BZ04252	$8270-SMR	Hexachlorobutadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5900	200	200	ug/Kg
BZ04252	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ04252	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6400	200	200	ug/Kg
BZ04252	$8270-SMR	2,4-Dinitrophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	8100	300	300	ug/Kg
BZ04252	$8270-SMR	Benzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / APS Organics	12000	11000	200	200	ug/Kg
BZ04252	$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	33000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	11000	1000	1000	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04252	$8270-SMR	Hexachlorocyclopentadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4900	840	840	ug/Kg
BZ04252	$8270-SMR	Isophorone	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4500	740	740	ug/Kg
BZ04252	$8270-SMR	Nitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5700	200	200	ug/Kg
BZ04252	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5200	200	200	ug/Kg
BZ04252	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4600	200	200	ug/Kg
BZ04252	$8270-SMR	1,2,4-Trichlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4900	1400	1400	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5200	200	200	ug/Kg
BZ04252	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6200	200	200	ug/Kg
BZ04252	$8270-SMR	Pentachloronitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4800	140	140	ug/Kg
BZ04252	$8270-SMR	Pyridine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4000	200	200	ug/Kg
BZ04252	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	3900	100	100	ug/Kg
BZ04252	$8270-SMR	2,4-Dimethylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4000	2800	2800	ug/Kg
BZ04252	$8270-SMR	2-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	11000	300	300	ug/Kg
BZ04252	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7600	200	200	ug/Kg
BZ04252	$8270-SMR	3-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	11000	300	300	ug/Kg
BZ04252	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	8100	300	300	ug/Kg
BZ04252	$8270-SMR	Carbazole	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	4-Chloroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7500	200	200	ug/Kg
BZ04252	$8270-SMR	4-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5400	300	300	ug/Kg
BZ04252	$8270-SMR	Acenaphthene	CT / RSR GA,GAA (mg/kg) / APS Organics	110000	11000	8400	8400	ug/Kg
BZ04252	$8270-SMR	Aniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ04252	$8270-SMR	2-Methylphenol (o-cresol)	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7600	2800	2800	ug/Kg
BZ04252	$8270-SMR	2-Methylnaphthalene	CT / RSR GA,GAA (mg/kg) / APS Organics	540000	230000	560	560	ug/Kg
BZ04252	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5100	200	200	ug/Kg
BZ04252	$8270-SMR	Bis(2-chloroethoxy)methane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4500	420	420	ug/Kg
BZ04252	$8270-SMR	Benzo(ghi)perylene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	58000	11000	40000	40000	ug/Kg
BZ04252	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4500	1000	1000	ug/Kg
BZ04252	$8270-SMR	Pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	74000	11000	4000	4000	ug/Kg
BZ04252	$8270-SMR	Phenanthrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	190000	11000	4000	4000	ug/Kg
BZ04252	$8270-SMR	Hexachloroethane	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4800	1000	1000	ug/Kg
BZ04252	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4400	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	14000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / Semivolatiles	12000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Fluorene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	51000	11000	5600	5600	ug/Kg
BZ04252	$8270-SMR	Di-n-butylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	16000	14000	14000	ug/Kg
BZ04252	$8270-SMR	Di-n-octylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4200	2000	2000	ug/Kg
BZ04252	$8270-SMR	Benz(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	29000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	2,4-Dichlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	5700	1000	1000	ug/Kg
BZ04252	$8270-SMR	Naphthalene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	950000	230000	5600	5600	ug/Kg
BZ04252	$8270-SMR	Pentachlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	6100	1000	1000	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04252	$8270-SMR	Fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	51000	11000	5600	5600	ug/Kg
BZ04252	$8270-SMR	Bis(2-ethylhexyl)phthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4700	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	19000	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	2-Chlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4600	1000	1000	ug/Kg
BZ04252	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	11000	1000	1000	ug/Kg
BZ04252	$8270-SMR	Acenaphthylene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	50000	11000	8400	8400	ug/Kg
BZ04252	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	11000	590	2500	2500	mg/Kg
BZ04252	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	11000	590	500	500	mg/Kg
BZ04252	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GA,GAA (mg/kg) / Pesticides/TPH	11000	590	500	500	mg/Kg
BZ04253	$8260MAR	Total Xylenes	CT / RSR DEC I/C (mg/kg) / Volatiles	1260000	46000	1000000	1000000	ug/Kg
BZ04253	$8260MAR	Total Xylenes	CT / RSR DEC RES (mg/kg) / Volatiles	1260000	46000	500000	500000	ug/Kg
BZ04253	$8260MAR	Total Xylenes	CT / RSR GA,GAA (mg/kg) / Volatiles	1260000	46000	19500	19500	ug/Kg
BZ04253	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	9200	820	820	ug/Kg
BZ04253	$8260MAR	Naphthalene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	8500000	460000	2500000	2500000	ug/Kg
BZ04253	$8260MAR	1,2-Dibromoethane	CT / RSR DEC I/C (mg/kg) / Volatiles	ND	4600	67	67	ug/Kg
BZ04253	$8260MAR	Benzene	CT / RSR DEC I/C (mg/kg) / Volatiles	1900000	460000	200000	200000	ug/Kg
BZ04253	$8260MAR	Toluene	CT / RSR DEC I/C (mg/kg) / Volatiles	2000000	460000	1000000	1000000	ug/Kg
BZ04253	$8260MAR	Vinyl chloride	CT / RSR DEC I/C (mg/kg) / Volatiles	ND	4600	3000	3000	ug/Kg
BZ04253	$8260MAR	Ethylbenzene	CT / RSR DEC I/C (mg/kg) / Volatiles	1400000	46000	1000000	1000000	ug/Kg
BZ04253	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	9200	90	90	ug/Kg
BZ04253	$8260MAR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	8500000	460000	1000000	1000000	ug/Kg
BZ04253	$8260MAR	Benzene	CT / RSR DEC RES (mg/kg) / Volatiles	1900000	460000	21000	21000	ug/Kg
BZ04253	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	4600	320	320	ug/Kg
BZ04253	$8260MAR	Toluene	CT / RSR DEC RES (mg/kg) / Volatiles	2000000	460000	500000	500000	ug/Kg
BZ04253	$8260MAR	Ethylbenzene	CT / RSR DEC RES (mg/kg) / Volatiles	1400000	46000	500000	500000	ug/Kg
BZ04253	$8260MAR	Carbon tetrachloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9200	4700	4700	ug/Kg
BZ04253	$8260MAR	Acrylonitrile	CT / RSR DEC RES (mg/kg) / Volatiles	ND	4600	1100	1100	ug/Kg
BZ04253	$8260MAR	1,2-Dichloropropane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9200	9000	9000	ug/Kg
BZ04253	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	4600	7	7	ug/Kg
BZ04253	$8260MAR	1,1-Dichloroethene	CT / RSR DEC RES (mg/kg) / Volatiles	ND	4600	1000	1000	ug/Kg
BZ04253	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9200	3100	3100	ug/Kg
BZ04253	$8260MAR	Dibromochloromethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9200	7300	7300	ug/Kg
BZ04253	$8260MAR	Carbon Disulfide	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	800	800	ug/Kg
BZ04253	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	300000	46000	2800	2800	ug/Kg
BZ04253	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	5	5	ug/Kg
BZ04253	$8260MAR	2-Chlorotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	2800	2800	ug/Kg
BZ04253	$8260MAR	2-Hexanone	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	46000	700	700	ug/Kg
BZ04253	$8260MAR	2-Isopropyltoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4600	500	500	ug/Kg
BZ04253	$8260MAR	4-Chlorotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4600	2800	2800	ug/Kg
BZ04253	$8260MAR	1,2,4-Trichlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	1400	1400	ug/Kg
BZ04253	$8260MAR	Bromomethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	18000	70	70	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04253	$8260MAR	1,3,5-Trimethylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	84000	46000	2800	2800	ug/Kg
BZ04253	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	23000	80	80	ug/Kg
BZ04253	$8260MAR	n-Propylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	30000	28000	1000	1000	ug/Kg
BZ04253	$8260MAR	n-Butylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	46000	7000	7000	ug/Kg
BZ04253	$8260MAR	Isopropylbenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	38000	35000	500	500	ug/Kg
BZ04253	$8260MAR	Hexachlorobutadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4600	200	200	ug/Kg
BZ04253	$8260MAR	Chloroethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4600	150	150	ug/Kg
BZ04253	$8260MAR	Chloromethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	360	360	ug/Kg
BZ04253	$8260MAR	Bromodichloromethane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9200	20	20	ug/Kg
BZ04253	$8260MAR	Naphthalene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	8500000	460000	5600	5600	ug/Kg
BZ04253	$8260MAR	Styrene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	46000	2000	2000	ug/Kg
BZ04253	$8260MAR	Chloroform	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	120	120	ug/Kg
BZ04253	$8260MAR	4-Methyl-2-pentanone	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	46000	7000	7000	ug/Kg
BZ04253	$8260MAR	Acetone	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	46000	14000	14000	ug/Kg
BZ04253	$8260MAR	Benzene	CT / RSR GA,GAA (mg/kg) / Volatiles	1900000	460000	20	20	ug/Kg
BZ04253	$8260MAR	1,4-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	1500	1500	ug/Kg
BZ04253	$8260MAR	Trichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	100	100	ug/Kg
BZ04253	$8260MAR	trans-1,2-Dichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	2000	2000	ug/Kg
BZ04253	$8260MAR	Bromoform	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	80	80	ug/Kg
BZ04253	$8260MAR	Vinyl chloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	40	40	ug/Kg
BZ04253	$8260MAR	Tetrachloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	100	100	ug/Kg
BZ04253	$8260MAR	Acrylonitrile	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	10	10	ug/Kg
BZ04253	$8260MAR	Carbon tetrachloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	100	100	ug/Kg
BZ04253	$8260MAR	Methylene chloride	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	46000	100	100	ug/Kg
BZ04253	$8260MAR	Methyl t-butyl ether (MTBE)	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	2000	2000	ug/Kg
BZ04253	$8260MAR	Methyl Ethyl Ketone	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	46000	8000	8000	ug/Kg
BZ04253	$8260MAR	Ethylbenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	1400000	46000	10100	10100	ug/Kg
BZ04253	$8260MAR	Chlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	2000	2000	ug/Kg
BZ04253	$8260MAR	Dibromochloromethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	10	10	ug/Kg
BZ04253	$8260MAR	cis-1,2-Dichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	1400	1400	ug/Kg
BZ04253	$8260MAR	Toluene	CT / RSR GA,GAA (mg/kg) / Volatiles	2000000	460000	20000	20000	ug/Kg
BZ04253	$8260MAR	1,2-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	3100	3100	ug/Kg
BZ04253	$8260MAR	1,1-Dichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	1400	1400	ug/Kg
BZ04253	$8260MAR	1,1,2-Trichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	100	100	ug/Kg
BZ04253	$8260MAR	1,1-Dichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	140	140	ug/Kg
BZ04253	$8260MAR	1,2-Dichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	20	20	ug/Kg
BZ04253	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	10	10	ug/Kg
BZ04253	$8260MAR	1,1,1-Trichloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	4000	4000	ug/Kg
BZ04253	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	20	20	ug/Kg
BZ04253	$8260MAR	1,2-Dichloropropane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	9200	100	100	ug/Kg
BZ04253	$8260MAR	1,2-Dibromoethane	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	4600	10	10	ug/Kg
BZ04253	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	61000	13000	13000	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04253	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC I/C (mg/kg) / APS Organics	110000	91000	78000	78000	ug/Kg
BZ04253	$8270-SMR	2-Methylnaphthalene	CT / RSR DEC I/C (mg/kg) / APS Organics	2200000	91000	1000000	1000000	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	42000	820	820	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	37000	360	360	ug/Kg
BZ04253	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	42000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	91000	91000	7800	7800	ug/Kg
BZ04253	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	52000	7200	7200	ug/Kg
BZ04253	$8270-SMR	4-Chloroaniline	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	60000	29000	29000	ug/Kg
BZ04253	$8270-SMR	Nitrobenzene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	45000	41000	41000	ug/Kg
BZ04253	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	51000	8400	8400	ug/Kg
BZ04253	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	41000	8400	8400	ug/Kg
BZ04253	$8270-SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	270000	91000	7800	7800	ug/Kg
BZ04253	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	220000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC I/C (mg/kg) / Semivolatiles	ND	35000	5200	5200	ug/Kg
BZ04253	$8270-SMR	Naphthalene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	7000000	910000	2500000	2500000	ug/Kg
BZ04253	$8270-SMR	Dibenzofuran	CT / RSR DEC I/C (mg/kg) / Semivolatiles	ND	91000	3600	3600	ug/Kg
BZ04253	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	150000	91000	78000	78000	ug/Kg
BZ04253	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	140000	91000	7800	7800	ug/Kg
BZ04253	$8270-SMR	Pentachlorophenol	CT / RSR DEC I/C (mg/kg) / Semivolatiles	ND	49000	48000	48000	ug/Kg
BZ04253	$8270-SMR	Pyridine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	32000	20000	20000	ug/Kg
BZ04253	$8270-SMR	Chrysene	CT / RSR DEC RES (mg/kg) / APS Organics	280000	91000	84000	84000	ug/Kg
BZ04253	$8270-SMR	Carbazole	CT / RSR DEC RES (mg/kg) / APS Organics	ND	52000	31000	31000	ug/Kg
BZ04253	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	91000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	42000	200	200	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	37000	200	200	ug/Kg
BZ04253	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	42000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / APS Organics	ND	91000	68000	68000	ug/Kg
BZ04253	$8270-SMR	Nitrobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	45000	4000	4000	ug/Kg
BZ04253	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR DEC RES (mg/kg) / APS Organics	ND	65000	20000	20000	ug/Kg
BZ04253	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	41000	900	900	ug/Kg
BZ04253	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	51000	900	900	ug/Kg
BZ04253	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	60000	3100	3100	ug/Kg
BZ04253	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	61000	1400	1400	ug/Kg
BZ04253	$8270-SMR	4-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	43000	31000	31000	ug/Kg
BZ04253	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	52000	770	770	ug/Kg
BZ04253	$8270-SMR	2-Methylnaphthalene	CT / RSR DEC RES (mg/kg) / APS Organics	2200000	91000	270000	270000	ug/Kg
BZ04253	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	31000	20000	20000	ug/Kg
BZ04253	$8270-SMR	2-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	91000	31000	31000	ug/Kg
BZ04253	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	110000	91000	8400	8400	ug/Kg
BZ04253	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	3-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	91000	31000	31000	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04253	$8270-SMR	Pentachlorophenol	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	49000	5100	5100	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	35000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Phenanthrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1700000	91000	1000000	1000000	ug/Kg
BZ04253	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	150000	91000	8400	8400	ug/Kg
BZ04253	$8270-SMR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7000000	910000	1000000	1000000	ug/Kg
BZ04253	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	220000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	36000	8800	8800	ug/Kg
BZ04253	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	270000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	140000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	65000	300	300	ug/Kg
BZ04253	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	91000	200	200	ug/Kg
BZ04253	$8270-SMR	Diethyl phthalate	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	41000	20000	20000	ug/Kg
BZ04253	$8270-SMR	Dimethylphthalate	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	40000	20000	20000	ug/Kg
BZ04253	$8270-SMR	4-Chloroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	60000	200	200	ug/Kg
BZ04253	$8270-SMR	3-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	91000	300	300	ug/Kg
BZ04253	$8270-SMR	Benzo(ghi)perylene	CT / RSR GA,GAA (mg/kg) / APS Organics	110000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Hexachlorobutadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	47000	200	200	ug/Kg
BZ04253	$8270-SMR	Hexachlorocyclopentadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	40000	840	840	ug/Kg
BZ04253	$8270-SMR	4-Chloro-3-methylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	46000	14000	14000	ug/Kg
BZ04253	$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	280000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Isophorone	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	36000	740	740	ug/Kg
BZ04253	$8270-SMR	4-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	43000	300	300	ug/Kg
BZ04253	$8270-SMR	Nitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	45000	200	200	ug/Kg
BZ04253	$8270-SMR	Acenaphthene	CT / RSR GA,GAA (mg/kg) / APS Organics	570000	91000	8400	8400	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	37000	200	200	ug/Kg
BZ04253	$8270-SMR	Aniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	42000	200	200	ug/Kg
BZ04253	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	50000	200	200	ug/Kg
BZ04253	$8270-SMR	Pentachloronitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	39000	140	140	ug/Kg
BZ04253	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GA,GAA (mg/kg) / APS Organics	91000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroethoxy)methane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	36000	420	420	ug/Kg
BZ04253	$8270-SMR	Benzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	Benzoic acid	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	91000	20000	20000	ug/Kg
BZ04253	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	42000	1000	1000	ug/Kg
BZ04253	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	31000	100	100	ug/Kg
BZ04253	$8270-SMR	1,2,4-Trichlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	39000	1400	1400	ug/Kg
BZ04253	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	61000	200	200	ug/Kg
BZ04253	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	41000	200	200	ug/Kg
BZ04253	$8270-SMR	Pyridine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	32000	200	200	ug/Kg
BZ04253	$8270-SMR	2,4-Dimethylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	32000	2800	2800	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04253	$8270-SMR	2,4-Dinitrophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	65000	300	300	ug/Kg
BZ04253	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	51000	200	200	ug/Kg
BZ04253	$8270-SMR	2-Chloronaphthalene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	37000	11000	11000	ug/Kg
BZ04253	$8270-SMR	2-Methylphenol (o-cresol)	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	61000	2800	2800	ug/Kg
BZ04253	$8270-SMR	2-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	91000	300	300	ug/Kg
BZ04253	$8270-SMR	2,4,5-Trichlorophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	34000	14000	14000	ug/Kg
BZ04253	$8270-SMR	Carbazole	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	52000	200	200	ug/Kg
BZ04253	$8270-SMR	2-Methylnaphthalene	CT / RSR GA,GAA (mg/kg) / APS Organics	2200000	91000	560	560	ug/Kg
BZ04253	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	41000	200	200	ug/Kg
BZ04253	$8270-SMR	Pentachlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	49000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	140000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Phenanthrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1700000	91000	4000	4000	ug/Kg
BZ04253	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	150000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	790000	91000	4000	4000	ug/Kg
BZ04253	$8270-SMR	Benz(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	270000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	520000	91000	40000	40000	ug/Kg
BZ04253	$8270-SMR	Benzyl butyl phthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	33000	20000	20000	ug/Kg
BZ04253	$8270-SMR	Bis(2-ethylhexyl)phthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	37000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	220000	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Acenaphthylene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	730000	91000	8400	8400	ug/Kg
BZ04253	$8270-SMR	Fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	560000	91000	5600	5600	ug/Kg
BZ04253	$8270-SMR	2-Chlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	37000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Naphthalene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	7000000	910000	5600	5600	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	36000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	91000	1000	1000	ug/Kg
BZ04253	$8270-SMR	2,4-Dichlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	46000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Di-n-butylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	130000	14000	14000	ug/Kg
BZ04253	$8270-SMR	Hexachloroethane	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	39000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Di-n-octylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	33000	2000	2000	ug/Kg
BZ04253	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	35000	1000	1000	ug/Kg
BZ04253	$8270-SMR	Fluorene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	660000	91000	5600	5600	ug/Kg
BZ04253	$8270-SMR	1,4-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	38000	1500	1500	ug/Kg
BZ04253	$8270-SMR	1,2-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	37000	3100	3100	ug/Kg
BZ04253	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	52000	4000	2500	2500	mg/Kg
BZ04253	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	52000	4000	500	500	mg/Kg
BZ04253	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GA,GAA (mg/kg) / Pesticides/TPH	52000	4000	500	500	mg/Kg
BZ04254	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	5200	360	360	ug/Kg
BZ04254	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	7300	200	200	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	5900	820	820	ug/Kg
BZ04254	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	7300	7200	7200	ug/Kg
BZ04254	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	13000	1000	1000	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04254	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	27000	13000	7800	7800	ug/Kg
BZ04254	$8270-SMR	Dibenzofuran	CT / RSR DEC I/C (mg/kg) / Semivolatiles	ND	13000	3600	3600	ug/Kg
BZ04254	$8270-SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	50000	13000	7800	7800	ug/Kg
BZ04254	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	38000	13000	7800	7800	ug/Kg
BZ04254	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	44000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	8600	1400	1400	ug/Kg
BZ04254	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7300	200	200	ug/Kg
BZ04254	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	8500	3100	3100	ug/Kg
BZ04254	$8270-SMR	Nitrobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6400	4000	4000	ug/Kg
BZ04254	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	28000	13000	8400	8400	ug/Kg
BZ04254	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7200	900	900	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5900	200	200	ug/Kg
BZ04254	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	27000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5200	200	200	ug/Kg
BZ04254	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5800	900	900	ug/Kg
BZ04254	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7300	770	770	ug/Kg
BZ04254	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	50000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Pentachlorophenol	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	6900	5100	5100	ug/Kg
BZ04254	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	38000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	39000	13000	8400	8400	ug/Kg
BZ04254	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	4900	1000	1000	ug/Kg
BZ04254	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	44000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5200	200	200	ug/Kg
BZ04254	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5900	200	200	ug/Kg
BZ04254	$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	45000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5800	200	200	ug/Kg
BZ04254	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7200	200	200	ug/Kg
BZ04254	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	2,4-Dinitrophenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9100	300	300	ug/Kg
BZ04254	$8270-SMR	1,2,4-Trichlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5500	1400	1400	ug/Kg
BZ04254	$8270-SMR	Aniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	200	200	ug/Kg
BZ04254	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4400	100	100	ug/Kg
BZ04254	$8270-SMR	Benzo(ghi)perylene	CT / RSR GA,GAA (mg/kg) / APS Organics	28000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	200	200	ug/Kg
BZ04254	$8270-SMR	Nitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6400	200	200	ug/Kg
BZ04254	$8270-SMR	Hexachlorobutadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6600	200	200	ug/Kg
BZ04254	$8270-SMR	Hexachlorocyclopentadiene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5600	840	840	ug/Kg
BZ04254	$8270-SMR	Isophorone	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5100	740	740	ug/Kg
BZ04254	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GA,GAA (mg/kg) / APS Organics	27000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	2,4-Dimethylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4500	2800	2800	ug/Kg

Tuesday, September 26, 2017

Criteria: CT: GAM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GBZ04252 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04254	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	8600	200	200	ug/Kg
BZ04254	$8270-SMR	4-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	6100	300	300	ug/Kg
BZ04254	$8270-SMR	Benzidine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7300	200	200	ug/Kg
BZ04254	$8270-SMR	4-Chloroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	8500	200	200	ug/Kg
BZ04254	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	9100	300	300	ug/Kg
BZ04254	$8270-SMR	Carbazole	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	18000	200	200	ug/Kg
BZ04254	$8270-SMR	3-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	13000	300	300	ug/Kg
BZ04254	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	13000	200	200	ug/Kg
BZ04254	$8270-SMR	Pyridine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	4500	200	200	ug/Kg
BZ04254	$8270-SMR	2-Nitroaniline	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	13000	300	300	ug/Kg
BZ04254	$8270-SMR	2-Methylphenol (o-cresol)	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	8600	2800	2800	ug/Kg
BZ04254	$8270-SMR	2-Methylnaphthalene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5500	560	560	ug/Kg
BZ04254	$8270-SMR	Pentachloronitrobenzene	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5500	140	140	ug/Kg
BZ04254	$8270-SMR	Bis(2-chloroethoxy)methane	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5100	420	420	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	7000	200	200	ug/Kg
BZ04254	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GA,GAA (mg/kg) / APS Organics	ND	5900	200	200	ug/Kg
BZ04254	$8270-SMR	Naphthalene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	13000	5600	5600	ug/Kg
BZ04254	$8270-SMR	Phenanthrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	45000	13000	4000	4000	ug/Kg
BZ04254	$8270-SMR	Pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	69000	13000	4000	4000	ug/Kg
BZ04254	$8270-SMR	Pentachlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	6900	1000	1000	ug/Kg
BZ04254	$8270-SMR	Bis(2-ethylhexyl)phthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg
BZ04254	$8270-SMR	Benz(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	50000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Acenaphthylene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	13000	8400	8400	ug/Kg
BZ04254	$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	44000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	38000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	39000	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	2-Chlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	5200	1000	1000	ug/Kg
BZ04254	$8270-SMR	Di-n-butylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	18000	14000	14000	ug/Kg
BZ04254	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	5100	1000	1000	ug/Kg
BZ04254	$8270-SMR	2,4-Dichlorophenol	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	6400	1000	1000	ug/Kg
BZ04254	$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	13000	1000	1000	ug/Kg
BZ04254	$8270-SMR	Di-n-octylphthalate	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4700	2000	2000	ug/Kg
BZ04254	$8270-SMR	Fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	66000	13000	5600	5600	ug/Kg
BZ04254	$8270-SMR	Fluorene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	13000	5600	5600	ug/Kg
BZ04254	$8270-SMR	Hexachloroethane	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	5500	1000	1000	ug/Kg
BZ04254	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR GA,GAA (mg/kg) / Semivolatiles	ND	4900	1000	1000	ug/Kg
BZ04254	$8270-SMR	1,2-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	5200	3100	3100	ug/Kg
BZ04254	$8270-SMR	1,4-Dichlorobenzene	CT / RSR GA,GAA (mg/kg) / Volatiles	ND	5400	1500	1500	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP SITE ***Project Number:***

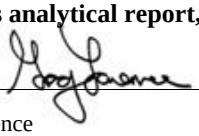
Laboratory Sample ID(s): BZ04252-BZ04255 ***Sampling Date(s):*** 9/18/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, September 26, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007
Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols

PHOENIX

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RCP Certification Report

September 26, 2017

SDG I.D.: GBZ04252

SDG Comments

Due to the concentration of target analytes not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 09/20/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/20/17

BZ04252, BZ04253, BZ04255

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 402068 (BZ03718)

BZ04252, BZ04253, BZ04255

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

ETPH Narration

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

Instrument:

AU-FID1 09/21/17-1 Jeff Bucko, Chemist 09/21/17

BZ04252

The initial calibration (ETPH912I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 09/21/17-1 Jeff Bucko, Chemist 09/21/17

BZ04255

The initial calibration (ETPH819I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID84 09/22/17-1 Jeff Bucko, Chemist 09/22/17

BZ04253

The initial calibration (ETPH830I) 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):

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SDG I.D.: GBZ04252

ETPH Narration

Batch 402207 (BZ05320)

BZ04252, BZ04253, BZ04255

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

Mercury Narration

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

Instrument:

MERLIN 09/20/17 15:52 Mike Arsenault, Chemist 09/20/17

BZ04252, BZ04253, BZ04255

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 402112 (BZ03349)

BZ04252, BZ04253

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

Batch 402141 (BZ04002)

BZ04252, BZ04253, BZ04255

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

ICP Metals Narration

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SDG I.D.: GBZ04252

ICP Metals Narration

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

QC Batch 402226 (Samples: BZ04252, BZ04253, BZ04255): -----

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

Instrument:

ARCOS 09/21/17 09:34 Mike Arsenault, Chemist 09/21/17

BZ04252, BZ04253, BZ04255

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

BLUE 09/20/17 12:10 Mike Arsenault, Chemist 09/20/17

BZ04252, BZ04253

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

QC (Batch Specific):

Batch 402226 (BZ04002)

BZ04252, BZ04253, BZ04255

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

QC (Site Specific):

Batch 402117 (BZ04253)

BZ04252, BZ04253

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

SVOA Narration

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RCP Certification Report

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SDG I.D.: GBZ04252

SVOA Narration

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

QC Batch 402182 (Samples: BZ04252, BZ04253, BZ04254, BZ04255): -----

The LCS recovery is below the method criteria. The Batch MS/MSD recovery is below the lower limit. A low bias for these analytes is likely. (2,4-Dinitrophenol, Benzoic Acid)

The QC recoveries are below the lower limit but within the method criteria. A low bias for this analyte is possible. (Pyridine)

The LCS recovery is below the method criteria. The Batch MS/MSD recovery is acceptable, therefore a slight low bias is possible. (4,6-Dinitro-2-methylphenol)

The Batch MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol)

Instrument:

CHEM19 09/20/17-1 Damien Drobinski, Chemist 09/20/17

BZ04255

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0920_04-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: N-Nitrosodimethylamine 45%L (30%), Pyridine 51%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 45%L (40%), Pyridine 51%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1), Hexachlorobenzene 0.080 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM19 09/21/17-1 Damien Drobinski, Chemist 09/21/17

BZ04252, BZ04253, BZ04254

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

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RCP Certification Report

September 26, 2017

SDG I.D.: GBZ04252

SVOA Narration

Continuing Calibration Verification (CHEM19/0921_02-SPLIT_0907):
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 50%L (30%), Pyridine 53%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 50%L (40%), Pyridine 53%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.081 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM19 09/22/17-1 Damien Drobinski, Chemist 09/22/17

BZ04252, BZ04253

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0922_02-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 402182 (BZ03955)

BZ04252, BZ04253, BZ04254, BZ04255

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pyridine(24%)
LCSD not reported for this batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

Instrument:

CHEM26 09/19/17-2 Jane Li, Chemist 09/19/17

BZ04252, BZ04253

Initial Calibration Verification (CHEM26/VT-0918):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.

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NY # 11301

RCP Certification Report

September 26, 2017

SDG I.D.: GBZ04252

VOA Narration

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

Continuing Calibration Verification (CHEM26/0919_05-VT-0918):
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.

CHEM26 09/20/17-1 Jane Li, Chemist 09/20/17

BZ04252, BZ04253, BZ04255

Initial Calibration Verification (CHEM26/VT-0918):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/0920_02-VT-0918):
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 402119 (BZ03619)

BZ04252, BZ04253

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

Batch 402425 (BZ04359)

BZ04252, BZ04253, BZ04255

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

Temperature Narration

The samples were received at 3.9C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 3.9 C Pg of

Data Delivery:
☐ Fax #:
☒ Email: lewilley@tighebond.com

Customer: Tighe & Bond
Address: 213 Court Street
Middletown, CT

Project: Rockville MGP Site
Report to: Lyn Willey
Invoice to: Payables @ Tighebond
Phone #:
Fax #:

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Date: 9/18/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC 8260B	SVOC 8270C	RSR metals	TCN	CT ETPH	SPLP Pb Metals	SPLP (PAID)	Soil VOA Vials ☒ methanol ☒ H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)	
04252	SB-03(10-12)	S	9/18/17	1230	X	X	X	X	X	X				X	X							Possible impacts Hydrocarbon
04253	SB-06(13-14)	S	↓	1150	X	X	X	X	X	X				X	X							Possible hydrocarbon
04254	SB-08(2-4)	S		1400		X									X							
04255	SB-08(9-10)	S		1435	X	X	X	X	X					X	X							

Relinquished by: **Accepted by:**
Date: 9/19/2017 Time: 14:39
Date: 9/19/17 Time: 1633

Comments, Special Requirements or Regulations:
Rockville MGP Site Quote T10125178A

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 Geotech

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

PHOENIX
Environmental Laboratories, Inc.

Friday, October 06, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ04863 - BZ04866

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

October 06, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/19/17	16:05
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	13:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ04863
Phoenix ID: BZ04863

Project ID:
Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	7.40	0.70	mg/Kg	1	09/22/17	MA	SW6010C
Barium	54.0	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	0.37	0.28	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	0.39	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	13.7	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Copper	24.0	0.35	mg/kg	1	09/22/17	MA	SW6010C
Mercury	0.11	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	8.70	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Lead	74.6	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	09/22/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/22/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/22/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/21/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/22/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Zinc	0.015	0.010	mg/L	1	09/22/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	09/22/17	MA	SW6010C

Ver 2

Project ID: Phoenix I.D.: BZ04863

Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A
Vanadium	27.1	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	71.7	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	95		%		09/20/17	Q	SW846-%Solid
SPLP Cyanide	< 0.01	0.01	mg/L	1	10/05/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	3.86	0.53	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				09/20/17	BC/V	SW3545A
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/21/17	BB/V	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/21/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/20/17	W	SW1312
SPLP Extraction for Organics	Completed				09/20/17	W	SW1312
SPLP Extraction, Wet Chemistry	Completed				10/02/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/21/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1800	510	mg/Kg	10	09/23/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	09/23/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	09/23/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1221	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1232	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1242	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1248	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1254	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1260	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1262	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1268	ND	340	ug/Kg	10	09/21/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	10	09/21/17	AW	30 - 150 %
% TCMX	62		%	10	09/21/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C

Ver 2

Project ID:
Phoenix I.D.: BZ04863

Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dibromoethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	09/21/17	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	09/21/17	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Benzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Bromodichloromethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Bromomethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	1	09/21/17	JLI	SW8260C
Methylene chloride	ND	9.1	ug/Kg	1	09/21/17	JLI	SW8260C
Naphthalene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C

Project ID:
Phoenix I.D.: BZ04863

Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	1	09/21/17	JLI	SW8260C
Toluene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	1	09/21/17	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	09/21/17	JLI	70 - 130 %
% Toluene-d8	95		%	1	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	770	ug/Kg	5	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	900	ug/Kg	5	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	900	ug/Kg	5	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2-Chlorophenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2-Methylnaphthalene	1400	1200	ug/Kg	5	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
2-Nitroaniline	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
2-Nitrophenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
3-Nitroaniline	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
4-Chloroaniline	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	5	09/21/17	DD	SW8270D
4-Nitrophenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Acenaphthene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Acenaphthylene	11000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Acetophenone	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Aniline	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D

Ver 2

Project ID:
Phoenix I.D.: BZ04863
Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	6000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benz(a)anthracene	17000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benzidine	ND	690	ug/Kg	5	09/21/17	DD	SW8270D
Benzo(a)pyrene	20000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	19000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benzo(ghi)perylene	17000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	16000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Benzoic acid	ND	3500	ug/Kg	5	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Carbazole	ND	1700	ug/Kg	5	09/21/17	DD	SW8270D
Chrysene	20000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	4000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Dibenzofuran	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Diethyl phthalate	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Dimethylphthalate	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	3500	ug/Kg	5	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Fluoranthene	27000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Fluorene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Hexachloroethane	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	15000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Isophorone	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Naphthalene	1600	1200	ug/Kg	5	09/21/17	DD	SW8270D
Nitrobenzene	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	490	ug/Kg	5	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	560	ug/Kg	5	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1400	ug/Kg	5	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	5	09/21/17	DD	SW8270D
Pentachlorophenol	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
Phenanthrene	20000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Phenol	ND	1200	ug/Kg	5	09/21/17	DD	SW8270D
Pyrene	36000	1200	ug/Kg	5	09/21/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	5	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	80		%	5	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	5	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	5	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	62		%	5	09/21/17	DD	30 - 130 %
% Phenol-d5	64		%	5	09/21/17	DD	30 - 130 %
% Terphenyl-d14	66		%	5	09/21/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	0.28	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)

Ver 2

Project ID: Phoenix I.D.: BZ04863

Client ID: SS-107 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acenaphthene	0.11	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Anthracene	0.37	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.13	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.14	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.08	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Chrysene	0.25	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.03	0.01	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluoranthene	1.3	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluorene	0.76	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.02	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Naphthalene	0.32	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
Phenanthrene	4.0	0.07	ug/L	1	09/22/17	DD	SW8270D (SIM)
Pyrene	0.17	0.09	ug/L	1	09/22/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	70		%	1	09/22/17	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	09/22/17	DD	30 - 130 %
% Terphenyl-d14	52		%	1	09/22/17	DD	30 - 130 %
Field Extraction	Completed				09/19/17		SW5035A

Project ID: Phoenix I.D.: BZ04863
Client ID: SS-107 (0-6 IN)

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:
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.

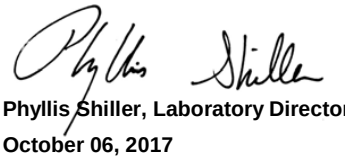
Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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

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



Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 06, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/19/17	16:10
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	13:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ04863
Phoenix ID: BZ04864

Project ID:
Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	3.60	0.87	mg/Kg	1	09/22/17	MA	SW6010C
Barium	64.3	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	< 0.35	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	11.7	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Copper	131	0.43	mg/kg	1	09/22/17	MA	SW6010C
Mercury	0.08	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	8.24	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Lead	81.0	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 4.3	4.3	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	09/22/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/22/17	MA	SW6010C
SPLP Barium	0.020	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/22/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Copper	0.017	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/21/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Lead	0.018	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/22/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Zinc	0.020	0.010	mg/L	1	09/22/17	MA	SW6010C
Thallium	< 3.9	3.9	mg/Kg	1	09/22/17	MA	SW6010C

Ver 2

Project ID: Phoenix I.D.: BZ04864

Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A
Vanadium	25.5	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	93.2	0.43	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	81		%		09/20/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.95	0.62	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				09/20/17	BC/V	SW3545A
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/21/17	BB/V	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/21/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/20/17	W	SW1312
SPLP Extraction for Organics	Completed				09/20/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/21/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	300	mg/Kg	5	09/23/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	09/23/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	5	09/23/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1221	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1232	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1242	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1248	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1254	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1260	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1262	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1268	ND	410	ug/Kg	10	09/21/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	59		%	10	09/21/17	AW	30 - 150 %
% TCMX	49		%	10	09/21/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C

Project ID: Phoenix I.D.: BZ04864

Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	09/21/17	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	09/21/17	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Bromobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/21/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/21/17	JLI	SW8260C
Naphthalene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
n-Butylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
n-Propylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/21/17	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C

Ver 2

Project ID: Phoenix I.D.: BZ04864

Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/21/17	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	09/21/17	JLI	70 - 130 %
% Toluene-d8	98		%	1	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylnaphthalene	290	290	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitroaniline	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
3-Nitroaniline	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthylene	1700	290	ug/Kg	1	09/21/17	DD	SW8270D
Acetophenone	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Aniline	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
Anthracene	1200	290	ug/Kg	1	09/21/17	DD	SW8270D
Benz(a)anthracene	4800	290	ug/Kg	1	09/21/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ04864

Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(a)pyrene	5000	290	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	5200	290	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(ghi)perylene	2700	290	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	4900	290	ug/Kg	1	09/21/17	DD	SW8270D
Benzoic acid	ND	820	ug/Kg	1	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Carbazole	430	410	ug/Kg	1	09/21/17	DD	SW8270D
Chrysene	6500	290	ug/Kg	1	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	710	290	ug/Kg	1	09/21/17	DD	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	820	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Fluoranthene	8600	2900	ug/Kg	10	09/21/17	DD	SW8270D
Fluorene	640	290	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2600	290	ug/Kg	1	09/21/17	DD	SW8270D
Isophorone	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Naphthalene	370	290	ug/Kg	1	09/21/17	DD	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
Phenanthrene	7700	290	ug/Kg	1	09/21/17	DD	SW8270D
Phenol	ND	290	ug/Kg	1	09/21/17	DD	SW8270D
Pyrene	9500	2900	ug/Kg	10	09/21/17	DD	SW8270D
Pyridine	ND	410	ug/Kg	1	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	64		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	59		%	1	09/21/17	DD	30 - 130 %
% Phenol-d5	59		%	1	09/21/17	DD	30 - 130 %
% Terphenyl-d14	59		%	1	09/21/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Acenaphthylene	0.22	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)

Ver 2

Project ID: Phoenix I.D.: BZ04864

Client ID: SS-108 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	0.12	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.37	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.37	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.32	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	0.20	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.33	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Chrysene	0.55	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.03	0.01	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluoranthene	1.3	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluorene	0.19	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.17	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Naphthalene	0.24	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Phenanthrene	1.5	0.07	ug/L	1	09/22/17	DD	SW8270D (SIM)
Pyrene	1.4	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	55		%	1	09/22/17	DD	30 - 130 %
% Nitrobenzene-d5	52		%	1	09/22/17	DD	30 - 130 %
% Terphenyl-d14	36		%	1	09/22/17	DD	30 - 130 %
Field Extraction	Completed				09/19/17		SW5035A

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

Comments:

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

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

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

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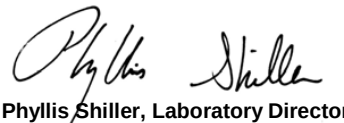

Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 06, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/19/17	11:00
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	13:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ04863
Phoenix ID: BZ04865

Project ID:
Client ID: SB-05 (20-21 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	1.44	0.70	mg/Kg	1	09/22/17	MA	SW6010C
Barium	39.7	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	0.30	0.28	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	12.8	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Copper	7.57	0.35	mg/kg	1	09/22/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	8.59	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Lead	4.19	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	09/22/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/22/17	MA	SW6010C
SPLP Barium	0.014	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/22/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/21/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/22/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Zinc	0.025	0.010	mg/L	1	09/22/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	09/22/17	MA	SW6010C

Ver 2

Project ID:
Phoenix I.D.: BZ04865

Client ID: SB-05 (20-21 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A
Vanadium	23.1	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	20.0	0.35	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	86		%		09/20/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.58	0.58	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/21/17	BB/V	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/21/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/20/17	W	SW1312
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	5100	290	mg/Kg	5	09/23/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/23/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	09/23/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	1000	ug/Kg	1000	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	74000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2-Dibromoethane	ND	670	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	3100	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2-Dichloroethane	ND	670	ug/Kg	1000	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	21000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
2-Hexanone	ND	7000	ug/Kg	1000	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	5000	ug/Kg	1000	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	14000	ug/Kg	1000	09/21/17	JLI	SW8260C
Acetone	ND	140000	ug/Kg	1000	09/21/17	JLI	SW8260C
Acrylonitrile	ND	670	ug/Kg	1000	09/21/17	JLI	SW8260C
Benzene	ND	670	ug/Kg	1000	09/21/17	JLI	SW8260C
Bromobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Bromochloromethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C

Ver 2

Project ID: Phoenix I.D.: BZ04865

Client ID: SB-05 (20-21 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
Bromoform	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
Bromomethane	ND	2700	ug/Kg	1000	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
Chlorobenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Chloroethane	ND	1500	ug/Kg	1000	09/21/17	JLI	SW8260C
Chloroform	ND	1200	ug/Kg	1000	09/21/17	JLI	SW8260C
Chloromethane	ND	3600	ug/Kg	1000	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
Dibromomethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Ethylbenzene	14000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	1500	ug/Kg	1000	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
m&p-Xylene	89000	34000	ug/Kg	5000	09/25/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	40000	ug/Kg	1000	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13000	ug/Kg	1000	09/21/17	JLI	SW8260C
Methylene chloride	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Naphthalene	1100000	34000	ug/Kg	5000	09/25/17	JLI	SW8260C
n-Butylbenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
n-Propylbenzene	5800	5800	ug/Kg	1000	09/21/17	JLI	SW8260C
o-Xylene	37000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Styrene	28000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	1300	ug/Kg	1000	09/21/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	3400	ug/Kg	1000	09/21/17	JLI	SW8260C
Toluene	5300	5000	ug/Kg	1000	09/21/17	JLI	SW8260C
Total Xylenes	126000	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13000	ug/Kg	1000	09/21/17	JLI	SW8260C
Trichloroethene	ND	1000	ug/Kg	1000	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6700	ug/Kg	1000	09/21/17	JLI	SW8260C
Vinyl chloride	ND	670	ug/Kg	1000	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1000	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	106		%	1000	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1000	09/21/17	JLI	70 - 130 %
% Toluene-d8	97		%	1000	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1800	ug/Kg	20	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	09/21/17	DD	SW8270D

Ver 2

Project ID: Phoenix I.D.: BZ04865

Client ID: SB-05 (20-21 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	3000	ug/Kg	20	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	2400	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	3800	ug/Kg	20	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	2400	ug/Kg	20	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2-Chlorophenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2-Methylnaphthalene	150000	110000	ug/Kg	400	09/22/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2-Nitroaniline	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
2-Nitrophenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	7600	ug/Kg	20	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	3600	ug/Kg	20	09/21/17	DD	SW8270D
3-Nitroaniline	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	3800	ug/Kg	20	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	7600	ug/Kg	20	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
4-Chloroaniline	ND	3500	ug/Kg	20	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
4-Nitroaniline	ND	2500	ug/Kg	20	09/21/17	DD	SW8270D
4-Nitrophenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Acenaphthene	8600	5300	ug/Kg	20	09/21/17	DD	SW8270D
Acenaphthylene	89000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Acetophenone	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Aniline	ND	3000	ug/Kg	20	09/21/17	DD	SW8270D
Anthracene	39000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benz(a)anthracene	20000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benzidine	ND	3000	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(a)pyrene	17000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	7700	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(ghi)perylene	8600	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	11000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Benzoic acid	ND	15000	ug/Kg	20	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	2100	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Carbazole	ND	3000	ug/Kg	20	09/21/17	DD	SW8270D
Chrysene	20000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Dibenzofuran	6100	5300	ug/Kg	20	09/21/17	DD	SW8270D
Diethyl phthalate	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Dimethylphthalate	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ04865

Client ID: SB-05 (20-21 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	15000	ug/Kg	20	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Fluoranthene	42000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Fluorene	52000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	2700	ug/Kg	20	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Hexachloroethane	ND	2300	ug/Kg	20	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	7500	5300	ug/Kg	20	09/21/17	DD	SW8270D
Isophorone	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Naphthalene	420000	110000	ug/Kg	400	09/22/17	DD	SW8270D
Nitrobenzene	ND	2700	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	2100	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	2500	ug/Kg	20	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	2900	ug/Kg	20	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	2300	ug/Kg	20	09/21/17	DD	SW8270D
Pentachlorophenol	ND	2900	ug/Kg	20	09/21/17	DD	SW8270D
Phenanthrene	140000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Phenol	ND	5300	ug/Kg	20	09/21/17	DD	SW8270D
Pyrene	60000	5300	ug/Kg	20	09/21/17	DD	SW8270D
Pyridine	ND	1900	ug/Kg	20	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	20	09/21/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/19/17		SW5035A

Project ID: Phoenix I.D.: BZ04865
Client ID: SB-05 (20-21 FT)

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:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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:
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.

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.
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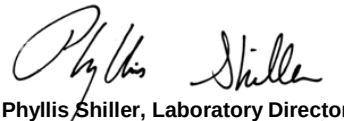

Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 06, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/19/17	16:11
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	13:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ04863
Phoenix ID: BZ04866

Project ID:
Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	4.05	0.77	mg/Kg	1	09/22/17	MA	SW6010C
Barium	60.3	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	0.35	0.31	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	13.7	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Copper	41.4	0.38	mg/kg	1	09/22/17	MA	SW6010C
Mercury	0.08	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	9.12	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Lead	82.3	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/22/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/22/17	MA	SW6010C
SPLP Barium	0.014	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/22/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Copper	0.011	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/21/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/22/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Zinc	0.033	0.010	mg/L	1	09/22/17	MA	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	09/22/17	MA	SW6010C

Ver 2

Project ID:
Phoenix I.D.: BZ04866

Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A
Vanadium	30.5	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	79.5	0.38	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	87		%		09/20/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				09/20/17	BC/V	SW3545A
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/21/17	BB/VCK	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/21/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/20/17	W	SW1312
SPLP Extraction for Organics	Completed				09/20/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/21/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	370	290	mg/Kg	5	09/22/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/22/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	116		%	5	09/22/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	09/21/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	96		%	10	09/21/17	AW	30 - 150 %
% TCMX	88		%	10	09/21/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C

Ver 2

Project ID: Phoenix I.D.: BZ04866

Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	09/21/17	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	09/21/17	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Bromobenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Bromodichloromethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
m&p-Xylene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	09/21/17	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	09/21/17	JLI	SW8260C
Naphthalene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
n-Butylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
n-Propylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
o-Xylene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	310	ug/Kg	50	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	09/21/17	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C

Project ID:
Phoenix I.D.: BZ04866

Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	610	ug/Kg	50	09/21/17	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	50	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	50	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	09/21/17	JLI	70 - 130 %
% Toluene-d8	92		%	1	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylnaphthalene	350	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthylene	1700	260	ug/Kg	1	09/21/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Aniline	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Anthracene	1100	260	ug/Kg	1	09/21/17	DD	SW8270D
Benz(a)anthracene	3600	260	ug/Kg	1	09/21/17	DD	SW8270D

Project ID:
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Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(a)pyrene	4000	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	4400	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(ghi)perylene	2600	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	3100	260	ug/Kg	1	09/21/17	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Carbazole	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Chrysene	5100	260	ug/Kg	1	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	630	260	ug/Kg	1	09/21/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	750	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Fluoranthene	6800	260	ug/Kg	1	09/21/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2400	260	ug/Kg	1	09/21/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Naphthalene	400	260	ug/Kg	1	09/21/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
Phenanthrene	6500	260	ug/Kg	1	09/21/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	09/21/17	DD	SW8270D
Pyrene	7600	2600	ug/Kg	10	09/21/17	DD	SW8270D
Pyridine	ND	380	ug/Kg	1	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	63		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	61		%	1	09/21/17	DD	30 - 130 %
% Phenol-d5	61		%	1	09/21/17	DD	30 - 130 %
% Terphenyl-d14	62		%	1	09/21/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)

Ver 2

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Client ID: SS-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.05	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.03	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.04	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.04	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Chrysene	0.07	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluoranthene	0.27	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Fluorene	0.13	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	09/22/17	DD	SW8270D (SIM)
Naphthalene	0.12	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
Phenanthrene	0.66	0.07	ug/L	1	09/22/17	DD	SW8270D (SIM)
Pyrene	0.23	0.10	ug/L	1	09/22/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	62		%	1	09/22/17	DD	30 - 130 %
% Nitrobenzene-d5	62		%	1	09/22/17	DD	30 - 130 %
% Terphenyl-d14	64		%	1	09/22/17	DD	30 - 130 %
Field Extraction	Completed				09/19/17		SW5035A

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

Comments:

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

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

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

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

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

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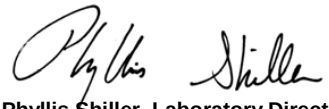

Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

October 06, 2017

QA/QC Data

SDG I.D.: GBZ04863

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 402303 (mg/L), QC Sample No: BZ02576 (BZ04863, BZ04864, BZ04865, BZ04866)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	96.8			99.7			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	95.1			97.7			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	105			109			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			105			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			103			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	99.0			101			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	100			103			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	98.2			101			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	99.1			101			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	101			102			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.4			101			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	99.3			102			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	100			102			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	99.2			101			75 - 125	20	
QA/QC Batch 402918 (mg/kg), QC Sample No: BZ04431 (BZ04863, BZ04864, BZ04865)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	96.3	95.1	1.3	99.4			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 402919 (mg/kg), QC Sample No: BZ04866 (BZ04866)														
Mercury - Soil	BRL	0.02	0.08	0.09	NC	96.6	98.1	1.5	124			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 402297 (mg/L), QC Sample No: BZ05210 (BZ04863, BZ04864, BZ04865, BZ04866)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.0			121			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 402254 (mg/kg), QC Sample No: BZ05362 (BZ04863, BZ04864, BZ04865, BZ04866)														
ICP Metals - Soil														
Antimony	BRL	3.3	<1.6	<3.1	NC	106			81.3			75 - 125	30	
Arsenic	BRL	0.66	2.55	1.40	NC	91.2			83.3			75 - 125	30	
Barium	BRL	0.33	132	109	19.1	97.2			111			75 - 125	30	
Beryllium	BRL	0.26	0.34	0.33	NC	97.9			89.1			75 - 125	30	
Cadmium	BRL	0.33	<0.31	<0.31	NC	98.9			86.8			75 - 125	30	
Chromium	BRL	0.33	29.2	27.8	4.90	107			91.8			75 - 125	30	
Copper	BRL	0.33	46.1	51.7	11.5	110			109			75 - 125	30	
Lead	BRL	0.33	12.2	17.7	36.8	97.0			96.8			75 - 125	30	r
Nickel	BRL	0.33	21.7	22.7	4.50	103			89.0			75 - 125	30	
Selenium	BRL	1.3	<1.3	<1.2	NC	92.4			82.0			75 - 125	30	
Silver	BRL	0.33	<0.31	<0.31	NC	96.6			95.6			75 - 125	30	

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Thallium	BRL	3.0	<1.3	<2.8	NC	103			95.8			75 - 125	30
Vanadium	BRL	0.33	63.3	64.4	1.70	105			85.0			75 - 125	30
Zinc	BRL	0.33	68.7	68.1	0.90	97.4			89.1			75 - 125	30

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

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QA/QC Report

October 06, 2017

QA/QC Data

SDG I.D.: GBZ04863

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 402411 (mg/Kg), QC Sample No: BZ04431 50X (BZ04863, BZ04864, BZ04865, BZ04866)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.58	NC	97.0			106			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 404192 (mg/L), QC Sample No: BZ12679 (BZ04863)													
Total Cyanide	BRL	0.01	<0.010	<0.01	NC	97.8			107			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 06, 2017

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402185 (ug/Kg), QC Sample No: BZ03955 2X (BZ04863, BZ04864, BZ04866)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	85	74	13.8	70	71	1.4	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	99	91	8.4	82	86	4.8	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	96	%	114	107	6.3	95	100	5.1	30 - 150	30	
% TCMX (Surrogate Rec)	75	%	89	78	13.2	75	72	4.1	30 - 150	30	
QA/QC Batch 402182 (ug/kg), QC Sample No: BZ03955 (BZ04863, BZ04864, BZ04865, BZ04866)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	67			52	54	3.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	64			47	49	4.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	62			43	45	4.5	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	71			63	61	3.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	58			40	41	2.5	30 - 130	30	
1,4-Dichlorobenzene	ND	230	60			42	43	2.4	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	72			66	61	7.9	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	70			62	59	5.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	76			61	62	1.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	71			58	60	3.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10			29	13	76.2	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	76			69	64	7.5	30 - 130	30	
2,6-Dinitrotoluene	ND	130	72			60	59	1.7	30 - 130	30	
2-Chloronaphthalene	ND	230	70			58	57	1.7	30 - 130	30	
2-Chlorophenol	ND	230	65			47	50	6.2	30 - 130	30	
2-Methylnaphthalene	ND	230	66			51	53	3.8	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	72			54	58	7.1	30 - 130	30	
2-Nitroaniline	ND	330	95			86	82	4.8	30 - 130	30	
2-Nitrophenol	ND	230	57			43	43	0.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	72			54	56	3.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82			82	76	7.6	30 - 130	30	
3-Nitroaniline	ND	330	88			76	74	2.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10			49	32	42.0	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	70			62	62	0.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	74			64	63	1.6	30 - 130	30	
4-Chloroaniline	ND	230	72			57	60	5.1	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	69			60	59	1.7	30 - 130	30	
4-Nitroaniline	ND	230	72			63	61	3.2	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Nitrophenol	ND	230	58			60	53	12.4	30 - 130	30	
Acenaphthene	ND	230	77			65	64	1.6	30 - 130	30	
Acenaphthylene	ND	130	66			59	56	5.2	30 - 130	30	
Acetophenone	ND	230	66			45	49	8.5	30 - 130	30	
Aniline	ND	330	67			47	50	6.2	30 - 130	30	
Anthracene	ND	230	73			66	66	0.0	30 - 130	30	
Benz(a)anthracene	ND	230	71			64	61	4.8	30 - 130	30	
Benzidine	ND	330	36			46	53	14.1	30 - 130	30	
Benzo(a)pyrene	ND	130	72			63	61	3.2	30 - 130	30	
Benzo(b)fluoranthene	ND	160	85			74	71	4.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	67			54	56	3.6	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81			72	71	1.4	30 - 130	30	
Benzoic Acid	ND	330	<10			21	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	82			77	74	4.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	74			55	57	3.6	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	64			44	46	4.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	70			48	51	6.1	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	84			82	75	8.9	30 - 130	30	
Carbazole	ND	230	77			69	69	0.0	30 - 130	30	
Chrysene	ND	230	73			67	65	3.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	71			57	60	5.1	30 - 130	30	
Dibenzofuran	ND	230	72			61	60	1.7	30 - 130	30	
Diethyl phthalate	ND	230	73			64	62	3.2	30 - 130	30	
Dimethylphthalate	ND	230	72			64	61	4.8	30 - 130	30	
Di-n-butylphthalate	ND	670	75			65	65	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	79			75	70	6.9	30 - 130	30	
Fluoranthene	ND	230	68			57	59	3.4	30 - 130	30	
Fluorene	ND	230	73			64	62	3.2	30 - 130	30	
Hexachlorobenzene	ND	130	67			64	62	3.2	30 - 130	30	
Hexachlorobutadiene	ND	230	62			45	45	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	56			25	30	18.2	30 - 130	30	m
Hexachloroethane	ND	130	59			39	39	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67			55	55	0.0	30 - 130	30	
Isophorone	ND	130	67			52	54	3.8	30 - 130	30	
Naphthalene	ND	230	66			49	51	4.0	30 - 130	30	
Nitrobenzene	ND	130	68			47	50	6.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	31			23	24	4.3	30 - 130	30	m
N-Nitrosodi-n-propylamine	ND	130	74			51	53	3.8	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75			67	64	4.6	30 - 130	30	
Pentachloronitrobenzene	ND	230	64			59	58	1.7	30 - 130	30	
Pentachlorophenol	ND	230	39			62	49	23.4	30 - 130	30	
Phenanthrene	ND	130	72			64	63	1.6	30 - 130	30	
Phenol	ND	230	73			56	59	5.2	30 - 130	30	
Pyrene	ND	230	69			57	60	5.1	30 - 130	30	
Pyridine	ND	230	24			17	19	11.1	30 - 130	30	l,m
% 2,4,6-Tribromophenol	65	%	59			57	57	0.0	30 - 130	30	
% 2-Fluorobiphenyl	77	%	72			57	57	0.0	30 - 130	30	
% 2-Fluorophenol	59	%	54			41	45	9.3	30 - 130	30	
% Nitrobenzene-d5	70	%	67			45	50	10.5	30 - 130	30	
% Phenol-d5	74	%	66			48	54	11.8	30 - 130	30	
% Terphenyl-d14	75	%	68			53	59	10.7	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Comment:											
LCSD not reported for this batch.											
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											
QA/QC Batch 402457 (mg/Kg), QC Sample No: BZ04866 (BZ04863, BZ04864, BZ04865, BZ04866)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	82	84	2.4				60 - 120	30	
% n-Pentacosane	55	%	60	61	1.7				50 - 150	30	
Comment:											
*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.											
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 402407 (ug/kg), QC Sample No: BZ04985 (BZ04863, BZ04864, BZ04865 (1000X) , BZ04866)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	121	120	0.8	112	119	6.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	111	114	2.7	108	117	8.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	119	113	5.2	107	110	2.8	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	115	111	3.5	105	110	4.7	70 - 130	30	
1,1-Dichloroethane	ND	5.0	109	110	0.9	112	115	2.6	70 - 130	30	
1,1-Dichloroethene	ND	5.0	103	104	1.0	92	98	6.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	111	112	0.9	111	119	7.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	116	116	0.0	134	142	5.8	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	111	103	7.5	101	105	3.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	107	106	0.9	118	123	4.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	112	111	0.9	108	115	6.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	132	121	8.7	112	120	6.9	70 - 130	30	l
1,2-Dibromoethane	ND	5.0	115	113	1.8	110	116	5.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	109	107	1.9	102	109	6.6	70 - 130	30	
1,2-Dichloroethane	ND	5.0	115	110	4.4	108	114	5.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0	113	114	0.9	110	116	5.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	110	109	0.9	106	113	6.4	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	108	106	1.9	102	108	5.7	70 - 130	30	
1,3-Dichloropropane	ND	5.0	111	109	1.8	106	113	6.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	105	104	1.0	101	107	5.8	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	118	0.0	111	119	7.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	105	106	0.9	104	111	6.5	70 - 130	30	
2-Hexanone	ND	25	105	100	4.9	98	99	1.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	103	1.0	99	106	6.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	107	105	1.9	101	107	5.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	111	105	5.6	97	98	1.0	70 - 130	30	
Acetone	ND	10	78	76	2.6	67	70	4.4	70 - 130	30	m
Acrylonitrile	ND	5.0	101	90	11.5	98	97	1.0	70 - 130	30	
Benzene	ND	1.0	110	110	0.0	109	115	5.4	70 - 130	30	
Bromobenzene	ND	5.0	110	107	2.8	103	109	5.7	70 - 130	30	
Bromochloromethane	ND	5.0	106	108	1.9	103	112	8.4	70 - 130	30	
Bromodichloromethane	ND	5.0	120	119	0.8	109	113	3.6	70 - 130	30	
Bromoform	ND	5.0	126	123	2.4	100	106	5.8	70 - 130	30	
Bromomethane	ND	5.0	95	92	3.2	54	57	5.4	70 - 130	30	m
Carbon Disulfide	ND	5.0	111	112	0.9	77	85	9.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	115	117	1.7	109	115	5.4	70 - 130	30	
Chlorobenzene	ND	5.0	107	106	0.9	103	111	7.5	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chloroethane	ND	5.0	90	89	1.1	18	18	0.0	70 - 130	30	m
Chloroform	ND	5.0	107	109	1.9	100	106	5.8	70 - 130	30	
Chloromethane	ND	5.0	82	94	13.6	80	85	6.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	106	107	0.9	105	111	5.6	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	124	122	1.6	113	119	5.2	70 - 130	30	
Dibromochloromethane	ND	3.0	127	126	0.8	114	120	5.1	70 - 130	30	
Dibromomethane	ND	5.0	114	111	2.7	106	112	5.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	91	92	1.1	88	90	2.2	70 - 130	30	
Ethylbenzene	ND	1.0	106	107	0.9	103	113	9.3	70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	106	2.8	105	111	5.6	70 - 130	30	
Isopropylbenzene	ND	1.0	112	111	0.9	108	116	7.1	70 - 130	30	
m&p-Xylene	ND	2.0	108	108	0.0	104	112	7.4	70 - 130	30	
Methyl ethyl ketone	ND	5.0	97	93	4.2	97	95	2.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	101	97	4.0	104	105	1.0	70 - 130	30	
Methylene chloride	ND	5.0	91	86	5.6	83	87	4.7	70 - 130	30	
Naphthalene	ND	5.0	128	127	0.8	184	183	0.5	70 - 130	30	m
n-Butylbenzene	ND	1.0	113	112	0.9	106	113	6.4	70 - 130	30	
n-Propylbenzene	ND	1.0	104	105	1.0	101	108	6.7	70 - 130	30	
o-Xylene	ND	2.0	113	115	1.8	111	119	7.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	113	113	0.0	110	115	4.4	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	115	0.9	112	118	5.2	70 - 130	30	
Styrene	ND	5.0	112	112	0.0	108	116	7.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	111	110	0.9	107	114	6.3	70 - 130	30	
Tetrachloroethene	ND	5.0	111	110	0.9	109	116	6.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	99	91	8.4	94	92	2.2	70 - 130	30	
Toluene	ND	1.0	112	111	0.9	109	114	4.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	107	108	0.9	108	113	4.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	124	119	4.1	107	115	7.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	128	120	6.5	103	106	2.9	70 - 130	30	
Trichloroethene	ND	5.0	108	108	0.0	105	111	5.6	70 - 130	30	
Trichlorofluoromethane	ND	5.0	89	89	0.0	18	17	5.7	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	93	92	1.1	85	90	5.7	70 - 130	30	
Vinyl chloride	ND	5.0	97	99	2.0	75	79	5.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	104	99	4.9	102	97	5.0	70 - 130	30	
% Bromofluorobenzene	101	%	101	101	0.0	101	103	2.0	70 - 130	30	
% Dibromofluoromethane	87	%	100	101	1.0	98	100	2.0	70 - 130	30	
% Toluene-d8	99	%	103	102	1.0	102	102	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 402611 (ug/kg), QC Sample No: BZ05333 (BZ04866 (50X))

Volatiles - Soil

1,1,2,2-Tetrachloroethane	ND	3.0	113	104	8.3	98	97	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	118	113	4.3	112	110	1.8	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	102	94	8.2	94	92	2.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	116	112	3.5	109	110	0.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	110	107	2.8	102	88	14.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	112	109	2.7	105	105	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	113	111	1.8	105	107	1.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	109	106	2.8	101	103	2.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	110	109	0.9	102	102	0.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	112	110	1.8	104	106	1.9	70 - 130	30	
2-Isopropyltoluene	ND	5.0	106	106	0.0	102	103	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ04863

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
4-Chlorotoluene	ND	5.0	109	107	1.9	102	104	1.9	70 - 130	30
Bromobenzene	ND	5.0	112	112	0.0	106	108	1.9	70 - 130	30
Hexachlorobutadiene	ND	5.0	120	120	0.0	116	116	0.0	70 - 130	30
Isopropylbenzene	ND	1.0	112	112	0.0	105	107	1.9	70 - 130	30
Naphthalene	ND	5.0	123	115	6.7	115	113	1.8	70 - 130	30
n-Butylbenzene	ND	1.0	114	114	0.0	108	110	1.8	70 - 130	30
n-Propylbenzene	ND	1.0	112	111	0.9	106	107	0.9	70 - 130	30
p-Isopropyltoluene	ND	1.0	115	114	0.9	108	110	1.8	70 - 130	30
sec-Butylbenzene	ND	1.0	113	114	0.9	108	110	1.8	70 - 130	30
tert-Butylbenzene	ND	1.0	113	113	0.0	108	108	0.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	121	108	11.4	95	94	1.1	70 - 130	30
% 1,2-dichlorobenzene-d4	95	%	103	102	1.0	102	102	0.0	70 - 130	30
% Bromofluorobenzene	100	%	99	99	0.0	98	97	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 402422 (ug/L), QC Sample No: BZ06184 (BZ04863, BZ04864, BZ04866)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	41	40	2.5				30 - 130	20
Acenaphthene	ND	0.05	77	81	5.1				30 - 130	20
Acenaphthylene	ND	0.04	72	74	2.7				30 - 130	20
Anthracene	ND	0.02	93	88	5.5				30 - 130	20
Benz(a)anthracene	ND	0.02	79	76	3.9				30 - 130	20
Benzo(a)pyrene	ND	0.02	73	72	1.4				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	79	78	1.3				30 - 130	20
Benzo(ghi)perylene	ND	0.02	63	61	3.2				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	80	78	2.5				30 - 130	20
Chrysene	ND	0.02	75	72	4.1				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	72	69	4.3				30 - 130	20
Fluoranthene	ND	0.04	93	91	2.2				30 - 130	20
Fluorene	ND	0.05	85	86	1.2				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	67	64	4.6				30 - 130	20
Naphthalene	ND	0.05	41	42	2.4				30 - 130	20
Phenanthrene	ND	0.05	82	77	6.3				30 - 130	20
Pyrene	ND	0.02	95	94	1.1				30 - 130	20
% 2-Fluorobiphenyl	62	%	60	64	6.5				30 - 130	20
% Nitrobenzene-d5	58	%	44	48	8.7				30 - 130	20
% Terphenyl-d14	90	%	106	101	4.8				30 - 130	20

Comment:

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

QA/QC Batch 402954 (ug/kg), QC Sample No: BZ06767 (BZ04865 (5000X))

Volatiles - Soil

m&p-Xylene	ND	2.0	108	104	3.8	105	108	2.8	70 - 130	30
Naphthalene	ND	5.0	111	112	0.9	106	104	1.9	70 - 130	30

Comment:

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

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.

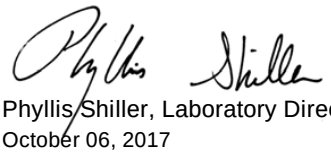
QA/QC Data

SDG I.D.: GBZ04863

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

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

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



Phyllis Shiller, Laboratory Director
October 06, 2017

Friday, October 06, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ04863 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04863	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	560	200	200	ug/Kg
BZ04863	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	690	200	200	ug/Kg
BZ04863	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	490	200	200	ug/Kg
BZ04863	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	15000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	17000	1200	8400	8400	ug/Kg
BZ04863	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	16000	1200	8400	8400	ug/Kg
BZ04863	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	20000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	19000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	15000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	17000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	20000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	19000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	17000	1200	1000	1000	ug/Kg
BZ04863	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	20000	1200	1000	1000	ug/Kg
BZ04863	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1800	510	500	500	mg/Kg
BZ04864	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2600	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5200	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4800	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5000	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2600	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	6500	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2700	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	4800	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	5200	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	5000	290	1000	1000	ug/Kg
BZ04864	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4900	290	1000	1000	ug/Kg
BZ04865	$8260MAR	Total Xylenes	CT / RSR GB (mg/kg) / Volatiles	126000	6700	19500	19500	ug/Kg
BZ04865	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1300	90	90	ug/Kg
BZ04865	$8260MAR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100000	34000	1000000	1000000	ug/Kg
BZ04865	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	670	7	7	ug/Kg
BZ04865	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	670	320	320	ug/Kg
BZ04865	$8260MAR	Bromomethane	CT / RSR GB (mg/kg) / APS Organics	ND	2700	700	700	ug/Kg
BZ04865	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GB (mg/kg) / APS Organics	ND	3400	800	800	ug/Kg

Friday, October 06, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ04863 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04865	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	1300	40	40	ug/Kg
BZ04865	$8260MAR	Isopropylbenzene	CT / RSR GB (mg/kg) / APS Organics	ND	6700	5000	5000	ug/Kg
BZ04865	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	74000	6700	28000	28000	ug/Kg
BZ04865	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	1300	210	210	ug/Kg
BZ04865	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	1100000	34000	56000	56000	ug/Kg
BZ04865	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	ND	670	200	200	ug/Kg
BZ04865	$8260MAR	Bromoform	CT / RSR GB (mg/kg) / Volatiles	ND	1300	800	800	ug/Kg
BZ04865	$8260MAR	Carbon tetrachloride	CT / RSR GB (mg/kg) / Volatiles	ND	1300	1000	1000	ug/Kg
BZ04865	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	670	100	100	ug/Kg
BZ04865	$8260MAR	Vinyl chloride	CT / RSR GB (mg/kg) / Volatiles	ND	670	400	400	ug/Kg
BZ04865	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	670	100	100	ug/Kg
BZ04865	$8260MAR	Tetrachloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	1300	1000	1000	ug/Kg
BZ04865	$8260MAR	Styrene	CT / RSR GB (mg/kg) / Volatiles	28000	6700	20000	20000	ug/Kg
BZ04865	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	6700	1000	1000	ug/Kg
BZ04865	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	1300	100	100	ug/Kg
BZ04865	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1300	200	200	ug/Kg
BZ04865	$8260MAR	1,2-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	670	200	200	ug/Kg
BZ04865	$8260MAR	Ethylbenzene	CT / RSR GB (mg/kg) / Volatiles	14000	6700	10100	10100	ug/Kg
BZ04865	$8260MAR	1,1,2-Trichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1300	1000	1000	ug/Kg
BZ04865	$8260MAR	1,2-Dichloropropane	CT / RSR GB (mg/kg) / Volatiles	ND	1300	1000	1000	ug/Kg
BZ04865	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1300	100	100	ug/Kg
BZ04865	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	7500	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2100	200	200	ug/Kg
BZ04865	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	770	770	ug/Kg
BZ04865	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	8600	5300	8400	8400	ug/Kg
BZ04865	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2500	200	200	ug/Kg
BZ04865	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	200	200	ug/Kg
BZ04865	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5300	900	900	ug/Kg
BZ04865	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	900	900	ug/Kg
BZ04865	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3500	3100	3100	ug/Kg
BZ04865	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3600	1400	1400	ug/Kg
BZ04865	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7700	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	20000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	11000	5300	8400	8400	ug/Kg
BZ04865	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2100	1000	1000	ug/Kg
BZ04865	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	6100	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3800	2800	2800	ug/Kg
BZ04865	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1200	1200	ug/Kg
BZ04865	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2100	1000	1000	ug/Kg
BZ04865	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg

Friday, October 06, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ04863 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04865	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2500	1000	1000	ug/Kg
BZ04865	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ04865	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	6100	5300	1400	1400	ug/Kg
BZ04865	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	20000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ04865	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2900	1400	1400	ug/Kg
BZ04865	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	8600	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1400	1400	ug/Kg
BZ04865	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ04865	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	7500	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2500	2000	2000	ug/Kg
BZ04865	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ04865	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3800	2000	2000	ug/Kg
BZ04865	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5300	2000	2000	ug/Kg
BZ04865	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3600	1000	1000	ug/Kg
BZ04865	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5300	2000	2000	ug/Kg
BZ04865	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	150000	110000	5600	5600	ug/Kg
BZ04865	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ04865	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1900	1000	1000	ug/Kg
BZ04865	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ04865	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	60000	5300	40000	40000	ug/Kg
BZ04865	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2900	1000	1000	ug/Kg
BZ04865	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	140000	5300	40000	40000	ug/Kg
BZ04865	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	6100	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	11000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	7700	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	17000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	20000	5300	1000	1000	ug/Kg
BZ04865	$8270-SMR	Acenaphthylene	CT / RSR GB (mg/kg) / Semivolatiles	89000	5300	84000	84000	ug/Kg
BZ04865	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	420000	110000	56000	56000	ug/Kg
BZ04865	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2300	1000	1000	ug/Kg
BZ04865	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	5100	290	500	500	mg/Kg
BZ04865	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	5100	290	2500	2500	mg/Kg
BZ04866	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2400	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4400	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4000	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3600	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2600	260	1000	1000	ug/Kg

Friday, October 06, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ04863 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ04866	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	5100	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2400	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	4000	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4400	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3100	260	1000	1000	ug/Kg
BZ04866	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3600	260	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: SS-107 (0-6 IN) ***Project Number:***

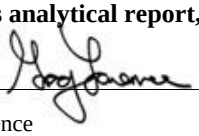
Laboratory Sample ID(s): BZ04863-BZ04866 ***Sampling Date(s):*** 9/19/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8082, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: Mercury Narration, SVOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Friday, October 06, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

SDG Comments

Due to the concentration of several target analytes not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 09/22/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/22/17

BZ04863, BZ04864, BZ04865, BZ04866

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 10/05/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/05/17

BZ04863

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 402411 (BZ04431)

BZ04863, BZ04864, BZ04865, BZ04866

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

Batch 404192 (BZ12679)

BZ04863

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents 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

RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

ETPH Narration

AU-FID1 09/22/17-1 Jeff Bucko, Chemist 09/22/17

BZ04863, BZ04864, BZ04865, BZ04866

The initial calibration (ETPH912I) 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 402457 (BZ04866)

BZ04863, BZ04864, BZ04865, BZ04866

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.
*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.
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? No.

QC Batch 402919 (Samples: BZ04866): -----

The MS is above the upper range, therefore a slight high bias is possible. (Mercury)

Instrument:

MERLIN 09/21/17 08:22 Rick Schweitzer, Chemist 09/21/17

BZ04863, BZ04864, BZ04865, BZ04866

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

MERLIN 09/26/17 08:00 Rick Schweitzer, Chemist 09/26/17

BZ04863, BZ04864, BZ04865, BZ04866

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):

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

October 06, 2017

SDG I.D.: GBZ04863

Mercury Narration

Batch 402297 (BZ05210)

BZ04863, BZ04864, BZ04865, BZ04866

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

Batch 402918 (BZ04431)

BZ04863, BZ04864, BZ04865

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

QC (Site Specific):

Batch 402919 (BZ04866)

BZ04866

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

ICP Metals Narration

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

Instrument:

ARCOS 09/21/17 09:34 Mike Arsenault, Chemist 09/21/17

BZ04863, BZ04864, BZ04865, BZ04866

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

BLUE 09/22/17 10:28 Mike Arsenault, Chemist 09/22/17

BZ04863, BZ04864, BZ04865, BZ04866

The initial calibration met criteria.

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Certification Report

October 06, 2017

SDG I.D.: GBZ04863

ICP Metals Narration

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

QC (Batch Specific):

Batch 402254 (BZ05362)

BZ04863, BZ04864, BZ04865, BZ04866

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

Batch 402303 (BZ02576)

BZ04863, BZ04864, BZ04865, BZ04866

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

PCB Narration

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

Instrument:

AU-ECD24 09/21/17-1 Adam Werner, Chemist 09/21/17

BZ04863, BZ04864, BZ04866

The initial calibration (PC808AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC808BI) 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 402185 (BZ03955)

BZ04863, BZ04864, BZ04866

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

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RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

SVOA Narration

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

QC Batch 402182 (Samples: BZ04863, BZ04864, BZ04865, BZ04866): -----

The LCS and Batch MS/MSD recovery is below the method criteria. A low bias for these analytes is likely. (2,4-Dinitrophenol, Benzoic Acid(

The LCS and Batch MS/MSD recovery is below the lower range but within the method criteria. A low bias is possible. (Pyridine)

The LCS recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. Therefore a slight low bias is possible. (4,6-Dinitro-2-methylphenol)

The Batch MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol)

Instrument:

CHEM19 09/20/17-1 Damien Drobinski, Chemist 09/20/17

BZ04863, BZ04864, BZ04866

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0920_04-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: N-Nitrosodimethylamine 45%L (30%), Pyridine 51%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 45%L (40%), Pyridine 51%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1), Hexachlorobenzene 0.080 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM19 09/21/17-1 Damien Drobinski, Chemist 09/21/17

BZ04864, BZ04865, BZ04866

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/BN_0907):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

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RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

SVOA Narration

Continuing Calibration Verification (CHEM19/0921_02-BN_0907):
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.

CHEM19 09/22/17-1 Damien Drobinski, Chemist 09/22/17

BZ04865

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0922_02-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 402182 (BZ03955)

BZ04863, BZ04864, BZ04865, BZ04866

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pyridine(24%)
LCSD not reported for this batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

Instrument:

CHEM04 09/22/17-1 Damien Drobinski, Chemist 09/22/17

BZ04863, BZ04864, BZ04866

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

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

Environmental Laboratories, Inc.
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RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

SVOASIM Narration

Initial Calibration Verification (CHEM04/SIM_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/0922_02-SIM_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 402422 (BZ06184)

BZ04863, BZ04864, BZ04866

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

CHEM03 09/25/17-1 Jane Li, Chemist 09/25/17

BZ04865

Initial Calibration Verification (CHEM03/VT-L0918):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0925L02-VT-L0918):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
94% 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 09/20/17-2 Jane Li, Chemist 09/20/17

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NY # 11301

RCP Certification Report

October 06, 2017

SDG I.D.: GBZ04863

VOA Narration

BZ04863, BZ04864, BZ04865, BZ04866

Initial Calibration Verification (CHEM14/VT-0920):
93% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Bromoform 24% (20%), Methylene chloride 21% (20%), Naphthalene 28% (20%), trans-1,3-Dichloropropene 25% (20%), trans-1,4-dichloro-2-butene 39% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0920_23-VT-0920):
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.

CHEM18 09/21/17-1 Jane Li, Chemist 09/21/17

BZ04866

Initial Calibration Verification (CHEM18/VT-M0920):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM18/0921M02-VT-M0920):
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.

QC (Batch Specific):

Batch 402407 (BZ04985)

BZ04863, BZ04864, BZ04865, BZ04866

All LCS recoveries were within 70 - 130 with the following exceptions: 1,2-Dibromo-3-chloropropane(132%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 402611 (BZ05333)

BZ04866

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

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

October 06, 2017

SDG I.D.: GBZ04863

VOA Narration

Batch 402954 (BZ06767)

BZ04865

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

Temperature Narration

The samples were received at 6.2C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 6.8° Pg 1 of 1

Data Delivery:
[ ] Fax #:
[X] Email: LEWilley@TigheBond.com

Customer: Tighe + Bond INC.
Address: 213 East Street
Middle town CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond Westfield
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Sampler's Signature: David Cassidy Date: 9/19/17

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 (EPA 8260)	SVOCs (EPA 8270)	CT ETPH	CT DEEP RSR Metals	Total Cyanide (EPA 9012)	VOCs (EPA 8260)	SVOCs (EPA 8270)	SPLP TAL Metals	SPLP CT DEEP RSR Metals	Soil VOA Vials ( )methanol (X) H2O	GL Soil container (X) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ] 250ml [ ]500ml [ ]1500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
04863	SS-107 (0-6")	S	9/19/17	1605	X	X	X	X	X	X	X	X					3	1						
04864	SS-108 (0-6")	↓	↓	1610	X	X	X	X	X	X	X	X					3	1						
04865	SB-05 (20-21')			1100	X	X	X	X	X			X					3	1						
04866	SS-DUP-1	↓	↓	1611	X	X	X	X	X	X	X	X					3	1						

Relinquished by:	Accepted by:	Date:	Time:
DJC		9/20/17	1245
		9-20-17	3:40

Comments, Special Requirements or Regulations:
Quote: T10125 17 BA
Rockville, Eversource, MGP Site

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

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

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

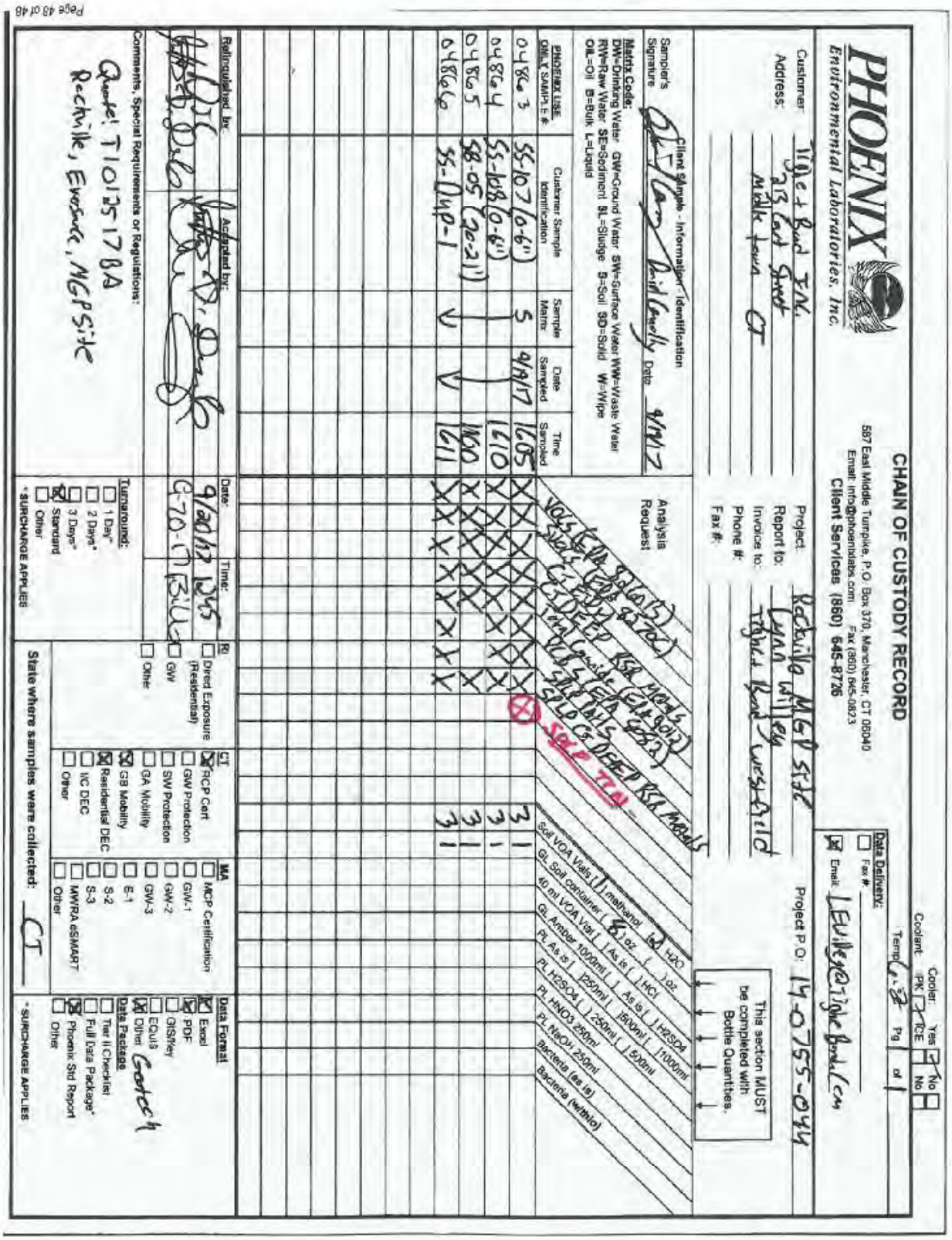
MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

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

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 250 of 1005



PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Cooler: PK ☐ ICE ☐ Yes ☑ No ☐
Temp: 0.2 Pg 1 of 1

Customer: Tighe + Bond, Inc.
Address: 213 East Street, Middletown, CT

Data Delivery:
☐ Fax #:
☑ Email: LBuliger@tighebond.com

Project: Rockville MGP Site
Report to: Lynn Miller, Tighe + Bond, Westfield
Invoice to:
Phone #:
Fax #:

Project P.O.: 14-0755-0044

Client Sample - Information - Identification
Sampler's Signature: [signature] Date: 9/19/17

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
04864-3	SS-107(0-6")	S	9/19/17	1605
04864-4	SS-108(0-6")			1610
04864-5	SB-05(20-21')			1420
04864-6	SS-DUP-1	↓	↓	1611

Analysis Request

VOCs (EPA 8260) SVOCs (EPA 8270) CT ETPH (EPA 8015) PCBs (EPA 8082) CT RSR Metals (EPA 6010/7470/7471) Lead (EPA 6010) TCLP Metals (EPA 6010/7470/7471) TCLP VOCs (EPA 8260) TCLP SVOCs (EPA 8270) TCLP Lead (EPA 6010) SPLP Metals (EPA 6010/7470/7471) CT DEEP RSR Metals (EPA 6010/7470/7471) Hold

SOIL ONLY

3	1																							
3	1																							
3	1																							

This section MUST be completed with Bottle Quantities.

5oz VOA Vials [ ] methanol [ ] H2O
GL Soil container [ ] 8 oz [ ] 4 oz [ ] 2 oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4 [ ] 1000ml
PL As is [ ] 250ml [ ] As is [ ] H2SO4 [ ] 500ml [ ] 500ml
PL H2SO4 [ ] 250ml [ ] 250ml [ ] 500ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria (as is)
Bacteria (w/thio)

Relinquished by: [signature] Date: 9/20/17 Time: 1045
Accepted by: [signature] Date: 9/20/17 Time: 1045

Comments, Special Requirements or Regulations:
Quote: T10135178A
Rectmile, Eversource, MGP Site

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

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

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

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

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

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

State where samples were collected: CT

* SURCHARGE APPLIES

Page 48 of 48

PHOENIX
Environmental Laboratories, Inc.

Monday, October 09, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ05324 - BZ05327

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

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

Analysis Report

October 09, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/20/17	10:00
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	17:11
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ05324
Phoenix ID: BZ05324

Project ID:
Client ID: SB-14 (18-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	0.89	0.72	mg/Kg	1	09/22/17	MA	SW6010C
Barium	28.5	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	0.30	0.29	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	9.37	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Copper	14.0	0.36	mg/kg	1	09/22/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	5.73	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Lead	3.93	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	09/22/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/22/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/22/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/21/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/22/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/22/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	09/22/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	09/22/17	MA	SW6010C

Ver 3

Project ID:
Phoenix I.D.: BZ05324

Client ID: SB-14 (18-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A
Vanadium	21.9	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	15.7	0.36	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	92		%		09/20/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/20/17	BC/VCK	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/21/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/20/17	W	SW1312
SPLP Extraction for Organics	Completed				09/20/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				09/21/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	09/22/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/22/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	54		%	1	09/22/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	09/21/17	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	09/21/17	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C

Ver 3

Project ID:
Phoenix I.D.: BZ05324
Client ID: SB-14 (18-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	09/21/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	09/21/17	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	09/21/17	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	09/21/17	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1	09/21/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ05324

Client ID: SB-14 (18-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Benzoic acid	ND	720	ug/Kg	1	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	09/21/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ05324

Client ID: SB-14 (18-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	720	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	09/21/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	54		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	62		%	1	09/21/17	DD	30 - 130 %
% Phenol-d5	56		%	1	09/21/17	DD	30 - 130 %
% Terphenyl-d14	73		%	1	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/20/17		SW5035A

Project ID: Phoenix I.D.: BZ05324
Client ID: SB-14 (18-19 FT)

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

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 09, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 09, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/20/17	10:15
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	17:11
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ05324
Phoenix ID: BZ05325

Project ID:
Client ID: SB-14 (23-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Arsenic	2.87	0.73	mg/Kg	1	09/29/17	MA	SW6010C
Barium	49.3	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Beryllium	0.45	0.29	mg/Kg	1	09/29/17	MA	SW6010C
Cadmium	0.37	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Chromium	21.4	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Copper	16.4	0.36	mg/kg	1	09/29/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/02/17	RS	SW7471B
Nickel	14.9	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Lead	5.03	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	09/29/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/29/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	09/29/17	MA	SW6010C
Vanadium	33.4	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Zinc	35.6	0.36	mg/Kg	1	09/29/17	MA	SW6010C
Percent Solid	87		%		09/28/17	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/29/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/28/17	CK/VCK	SW3545A
Mercury Digestion	Completed				10/02/17	W/W	SW7471B
SPLP Extraction for Organics	Completed				09/29/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				10/02/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				09/28/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	500	57	mg/Kg	1	09/30/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	09/30/17	JRB	CTETPH 8015D
QA/QC Surrogates							

Ver 3

Project ID:
Phoenix I.D.: BZ05325
Client ID: SB-14 (23-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% n-Pentacosane	98		%	1	09/30/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trimethylbenzene	1900	1300	ug/Kg	200	10/02/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,3,5-Trimethylbenzene	610	500	ug/Kg	200	10/02/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	09/30/17	JLI	SW8260C
2-Isopropyltoluene	8.8	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	09/30/17	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	09/30/17	JLI	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Benzene	82	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Bromodichloromethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Bromoform	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroform	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Ethylbenzene	1200	1100	ug/Kg	200	10/02/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C

Project ID: Phoenix I.D.: BZ05325

Client ID: SB-14 (23-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	290	250	ug/Kg	200	10/02/17	JLI	SW8260C
m&p-Xylene	990	880	ug/Kg	200	10/02/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	09/30/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.7	ug/Kg	1	09/30/17	JLI	SW8260C
Methylene chloride	ND	8.7	ug/Kg	1	09/30/17	JLI	SW8260C
Naphthalene	18000	1300	ug/Kg	200	10/02/17	JLI	SW8260C
n-Butylbenzene	36	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
n-Propylbenzene	100	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
o-Xylene	520	500	ug/Kg	200	10/02/17	JLI	SW8260C
p-Isopropyltoluene	97	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
sec-Butylbenzene	14	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Styrene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrachloroethene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.7	ug/Kg	1	09/30/17	JLI	SW8260C
Toluene	36	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Total Xylenes	1510	500	ug/Kg	200	10/02/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.7	ug/Kg	1	09/30/17	JLI	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	09/30/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	09/30/17	JLI	70 - 130 %
% Bromofluorobenzene	117		%	1	09/30/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	09/30/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	09/30/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1800	ug/Kg	20	10/02/17	G	SW8270D
1,2,4-Trichlorobenzene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	10/02/17	G	SW8270D
1,2-Diphenylhydrazine	ND	3000	ug/Kg	20	10/02/17	G	SW8270D
1,3-Dichlorobenzene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
1,4-Dichlorobenzene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2,4,5-Trichlorophenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2,4,6-Trichlorophenol	ND	2400	ug/Kg	20	10/02/17	G	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	10/02/17	G	SW8270D
2,4-Dimethylphenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2,4-Dinitrophenol	ND	3800	ug/Kg	20	10/02/17	G	SW8270D
2,4-Dinitrotoluene	ND	3000	ug/Kg	20	10/02/17	G	SW8270D
2,6-Dinitrotoluene	ND	2400	ug/Kg	20	10/02/17	G	SW8270D
2-Chloronaphthalene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2-Chlorophenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2-Methylnaphthalene	12000	5300	ug/Kg	20	10/02/17	G	SW8270D
2-Methylphenol (o-cresol)	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2-Nitroaniline	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
2-Nitrophenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D

Project ID: Phoenix I.D.: BZ05325

Client ID: SB-14 (23-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	7500	ug/Kg	20	10/02/17	G	SW8270D
3,3'-Dichlorobenzidine	ND	3500	ug/Kg	20	10/02/17	G	SW8270D
3-Nitroaniline	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
4,6-Dinitro-2-methylphenol	ND	3800	ug/Kg	20	10/02/17	G	SW8270D
4-Bromophenyl phenyl ether	ND	7500	ug/Kg	20	10/02/17	G	SW8270D
4-Chloro-3-methylphenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
4-Chloroaniline	ND	3500	ug/Kg	20	10/02/17	G	SW8270D
4-Chlorophenyl phenyl ether	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
4-Nitroaniline	ND	2500	ug/Kg	20	10/02/17	G	SW8270D
4-Nitrophenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Acenaphthene	15000	5300	ug/Kg	20	10/02/17	G	SW8270D
Acenaphthylene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Acetophenone	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Aniline	ND	3000	ug/Kg	20	10/02/17	G	SW8270D
Anthracene	8800	5300	ug/Kg	20	10/02/17	G	SW8270D
Benz(a)anthracene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Benzidine	ND	3000	ug/Kg	20	10/02/17	G	SW8270D
Benzo(a)pyrene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Benzo(b)fluoranthene	ND	2600	ug/Kg	20	10/02/17	G	SW8270D
Benzo(ghi)perylene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Benzo(k)fluoranthene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Benzoic acid	ND	15000	ug/Kg	20	10/02/17	G	SW8270D
Benzyl butyl phthalate	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	10/02/17	G	SW8270D
Bis(2-chloroethyl)ether	ND	2000	ug/Kg	20	10/02/17	G	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	10/02/17	G	SW8270D
Bis(2-ethylhexyl)phthalate	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Carbazole	ND	3000	ug/Kg	20	10/02/17	G	SW8270D
Chrysene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Dibenz(a,h)anthracene	ND	2400	ug/Kg	20	10/02/17	G	SW8270D
Dibenzofuran	ND	2200	ug/Kg	20	10/02/17	G	SW8270D
Diethyl phthalate	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Dimethylphthalate	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Di-n-butylphthalate	ND	15000	ug/Kg	20	10/02/17	G	SW8270D
Di-n-octylphthalate	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Fluoranthene	9200	5300	ug/Kg	20	10/02/17	G	SW8270D
Fluorene	11000	5300	ug/Kg	20	10/02/17	G	SW8270D
Hexachlorobenzene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Hexachlorobutadiene	ND	2700	ug/Kg	20	10/02/17	G	SW8270D
Hexachlorocyclopentadiene	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Hexachloroethane	ND	2300	ug/Kg	20	10/02/17	G	SW8270D
Indeno(1,2,3-cd)pyrene	ND	2500	ug/Kg	20	10/02/17	G	SW8270D
Isophorone	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Naphthalene	22000	5300	ug/Kg	20	10/02/17	G	SW8270D
Nitrobenzene	ND	2600	ug/Kg	20	10/02/17	G	SW8270D
N-Nitrosodimethylamine	ND	2100	ug/Kg	20	10/02/17	G	SW8270D
N-Nitrosodi-n-propylamine	ND	2400	ug/Kg	20	10/02/17	G	SW8270D
N-Nitrosodiphenylamine	ND	2900	ug/Kg	20	10/02/17	G	SW8270D
Pentachloronitrobenzene	ND	2300	ug/Kg	20	10/02/17	G	SW8270D

Project ID: Phoenix I.D.: BZ05325

Client ID: SB-14 (23-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pentachlorophenol	ND	2800	ug/Kg	20	10/02/17	G	SW8270D
Phenanthrene	31000	5300	ug/Kg	20	10/02/17	G	SW8270D
Phenol	ND	5300	ug/Kg	20	10/02/17	G	SW8270D
Pyrene	14000	5300	ug/Kg	20	10/02/17	G	SW8270D
Pyridine	ND	1800	ug/Kg	20	10/02/17	G	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	20	10/02/17	G	30 - 130 %
% 2-Fluorobiphenyl	68		%	20	10/02/17	G	30 - 130 %
% 2-Fluorophenol	61		%	20	10/02/17	G	30 - 130 %
% Nitrobenzene-d5	71		%	20	10/02/17	G	30 - 130 %
% Phenol-d5	65		%	20	10/02/17	G	30 - 130 %
% Terphenyl-d14	64		%	20	10/02/17	G	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Acenaphthene	14	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Acenaphthylene	2.1	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Anthracene	1.7	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.25	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.03	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.06	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.06	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Chrysene	0.27	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/04/17	DD	SW8270D (SIM)
Fluoranthene	1.6	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Fluorene	6.0	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Naphthalene	0.25	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Phenanthrene	10	0.07	ug/L	1	10/04/17	DD	SW8270D (SIM)
Pyrene	1.8	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	10/04/17	DD	30 - 130 %
% Nitrobenzene-d5	54		%	1	10/04/17	DD	30 - 130 %
% Terphenyl-d14	87		%	1	10/04/17	DD	30 - 130 %
Field Extraction	Completed				09/20/17		SW5035A

Project ID: Phoenix I.D.: BZ05325

Client ID: SB-14 (23-24 FT)

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 C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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.
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Phyllis Shiller, Laboratory Director
October 09, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 09, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/20/17	13:35
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	17:11
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ05324
Phoenix ID: BZ05326

Project ID:
Client ID: SB-16 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Arsenic	1.46	0.66	mg/Kg	1	09/22/17	MA	SW6010C
Barium	63.7	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Beryllium	0.43	0.27	mg/Kg	1	09/22/17	MA	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Chromium	21.0	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Copper	17.0	0.33	mg/kg	1	09/22/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/25/17	RS	SW7471B
Nickel	14.4	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Lead	5.70	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	09/22/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	09/22/17	MA	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	09/22/17	MA	SW6010C
Vanadium	33.6	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Zinc	36.4	0.33	mg/Kg	1	09/22/17	MA	SW6010C
Percent Solid	94		%		09/20/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	09/22/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/20/17	BC/CKV	SW3545A
Extraction of CT ETPH	Completed				09/20/17	BC/VCK	SW3545A
Mercury Digestion	Completed				09/25/17	W/W	SW7471B
Total Metals Digest	Completed				09/20/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	09/22/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/22/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	61		%	1	09/22/17	JRB	50 - 150 %

Ver 3

Project ID:
Phoenix I.D.: BZ05326
Client ID: SB-16 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	09/21/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	09/21/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	09/21/17	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	09/21/17	JLI	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Benzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Bromodichloromethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Bromoform	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Chloroform	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	09/21/17	JLI	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Ethylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Isopropylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C

Ver 3

Project ID: Phoenix I.D.: BZ05326

Client ID: SB-16 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	09/21/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.8	ug/Kg	1	09/21/17	JLI	SW8260C
Methylene chloride	ND	8.8	ug/Kg	1	09/21/17	JLI	SW8260C
Naphthalene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
n-Butylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
n-Propylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
o-Xylene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
sec-Butylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Styrene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrachloroethene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.8	ug/Kg	1	09/21/17	JLI	SW8260C
Toluene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Total Xylenes	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.8	ug/Kg	1	09/21/17	JLI	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	09/21/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	09/21/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	09/21/17	JLI	70 - 130 %
% Dibromofluoromethane	91		%	1	09/21/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	09/21/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/21/17	DD	SW8270D

Ver 3

Project ID: Phoenix I.D.: BZ05326

Client ID: SB-16 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	09/21/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	09/21/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-butylphthalate	ND	700	ug/Kg	1	09/21/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/21/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/21/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ05326

Client ID: SB-16 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/21/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	09/21/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	64		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	09/21/17	DD	30 - 130 %
% 2-Fluorophenol	50		%	1	09/21/17	DD	30 - 130 %
% Nitrobenzene-d5	57		%	1	09/21/17	DD	30 - 130 %
% Phenol-d5	57		%	1	09/21/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	09/21/17	DD	30 - 130 %
Field Extraction	Completed				09/20/17		SW5035A

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

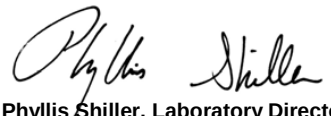
Comments:

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

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



Phyllis Shiller, Laboratory Director
October 09, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 09, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/20/17	14:00
Location Code:	TIGHE-DAS	Received by:	SW	09/20/17	17:11
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ05324
Phoenix ID: BZ05327

Project ID:
Client ID: SB-16 (30-32 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Arsenic	1.38	0.73	mg/Kg	1	09/23/17	MA	SW6010C
Barium	22.0	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Beryllium	< 0.29	0.29	mg/Kg	1	09/23/17	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Chromium	7.11	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Copper	3.68	0.37	mg/kg	1	09/23/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/26/17	RS	SW7471B
Nickel	4.39	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Lead	2.08	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	09/23/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/23/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	09/23/17	MA	SW6010C
Vanadium	12.3	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Zinc	11.6	0.37	mg/Kg	1	09/23/17	MA	SW6010C
Percent Solid	90		%		09/22/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	09/26/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/22/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/22/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
Total Metals Digest	Completed				09/22/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	09/25/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/25/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	09/25/17	JRB	50 - 150 %

Ver 3

Project ID:
Phoenix I.D.: BZ05327
Client ID: SB-16 (30-32 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	09/23/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
2-Chlorotoluene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	09/23/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
4-Chlorotoluene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	09/23/17	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	09/23/17	JLI	SW8260C
Acrylonitrile	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Benzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Bromobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Bromodichloromethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Bromoform	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Bromomethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Chloroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Chloroform	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Chloromethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	09/23/17	JLI	SW8260C
Dibromomethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	09/23/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/23/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/23/17	JLI	SW8260C
Naphthalene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
n-Butylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
n-Propylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
o-Xylene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
sec-Butylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Styrene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
tert-Butylbenzene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/23/17	JLI	SW8260C
Toluene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Total Xylenes	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/23/17	JLI	SW8260C
Trichloroethene	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/Kg	1	09/23/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	09/23/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	09/23/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	09/23/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	09/23/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	09/23/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	09/23/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/23/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Benzo(ghi)perylene	270	260	ug/Kg	1	09/23/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	09/23/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	09/23/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/23/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/23/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	09/23/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	09/23/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	09/23/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	64		%	1	09/23/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	09/23/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	09/23/17	DD	30 - 130 %
% Nitrobenzene-d5	57		%	1	09/23/17	DD	30 - 130 %
% Phenol-d5	58		%	1	09/23/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	09/23/17	DD	30 - 130 %
Field Extraction	Completed				09/20/17		SW5035A

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

Comments:

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

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

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

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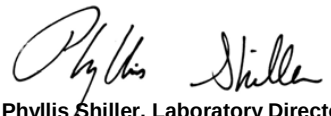

Phyllis Shiller, Laboratory Director
October 09, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

QA/QC Report

October 09, 2017

QA/QC Data

SDG I.D.: GBZ05324

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 402303 (mg/L), QC Sample No: BZ02576 (BZ05324)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	96.8			99.7			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	95.1			97.7			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	105			109			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			105			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			103			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	99.0			101			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	100			103			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	98.2			101			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	99.1			101			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	101			102			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	98.4			101			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	99.3			102			75 - 125	20
Vanadium	BRL	0.010	<0.010	<0.010	NC	100			102			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	99.2			101			75 - 125	20
QA/QC Batch 402919 (mg/kg), QC Sample No: BZ04866 (BZ05324, BZ05327)													
Mercury - Soil	BRL	0.02	0.08	0.09	NC	96.6	98.1	1.5	124			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 402297 (mg/L), QC Sample No: BZ05210 (BZ05324)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.0			121			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 403509 (mg/kg), QC Sample No: BZ05325 (BZ05325)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	94.4	90.2	4.6	86.6			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 402757 (mg/kg), QC Sample No: BZ05326 (BZ05326)													
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	95.1	91.1	4.3	93.3			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 402254 (mg/kg), QC Sample No: BZ05362 (BZ05324, BZ05326)													
ICP Metals - Soil													
Antimony	BRL	3.3	<1.6	<3.1	NC	106			81.3			75 - 125	30
Arsenic	BRL	0.66	2.55	1.40	NC	91.2			83.3			75 - 125	30
Barium	BRL	0.33	132	109	19.1	97.2			111			75 - 125	30
Beryllium	BRL	0.26	0.34	0.33	NC	97.9			89.1			75 - 125	30
Cadmium	BRL	0.33	<0.31	<0.31	NC	98.9			86.8			75 - 125	30
Chromium	BRL	0.33	29.2	27.8	4.90	107			91.8			75 - 125	30
Copper	BRL	0.33	46.1	51.7	11.5	110			109			75 - 125	30

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Lead	BRL	0.33	12.2 *	17.7	36.8	97.0			96.8			75 - 125	30	r
Nickel	BRL	0.33	21.7	22.7	4.50	103			89.0			75 - 125	30	
Selenium	BRL	1.3	<1.3	<1.2	NC	92.4			82.0			75 - 125	30	
Silver	BRL	0.33	<0.31	<0.31	NC	96.6			95.6			75 - 125	30	
Thallium	BRL	3.0	<1.3	<2.8	NC	103			95.8			75 - 125	30	
Vanadium	BRL	0.33	63.3	64.4	1.70	105			85.0			75 - 125	30	
Zinc	BRL	0.33	68.7	68.1	0.90	97.4			89.1			75 - 125	30	
QA/QC Batch 402637 (mg/kg), QC Sample No: BZ07290 (BZ05327)														
ICP Metals - Soil														
Antimony	BRL	3.5	<3.3	<3.3	NC	113			95.9			75 - 125	30	
Arsenic	BRL	0.69	6.35	6.09	4.20	99.9			95.8			75 - 125	30	
Barium	BRL	0.35	29.0	36.8	23.7	101			107			75 - 125	30	
Beryllium	BRL	0.28	0.47	0.49	NC	103			98.1			75 - 125	30	
Cadmium	BRL	0.35	0.46	0.41	NC	106			99.2			75 - 125	30	
Chromium	BRL	0.35	9.59	9.40	2.00	111			101			75 - 125	30	
Copper	BRL	0.35	13.4	38.8	97.3	111			109			75 - 125	30	r
Lead	BRL	0.35	58.1	64.7	10.7	104			>130			75 - 125	30	m
Nickel	BRL	0.35	9.40	15.9	51.4	108			99.9			75 - 125	30	r
Selenium	BRL	1.4	<1.3	<1.3	NC	98.3			85.5			75 - 125	30	
Silver	BRL	0.35	<0.33	<0.33	NC	102			99.8			75 - 125	30	
Thallium	BRL	3.1	<3.0	<3.0	NC	108			100			75 - 125	30	
Vanadium	BRL	0.35	21.0	22.9	8.70	110			101			75 - 125	30	
Zinc	BRL	0.35	113	224	65.9	103			99.9			75 - 125	30	r
QA/QC Batch 403433 (mg/kg), QC Sample No: BZ11170 (BZ05325)														
ICP Metals - Soil														
Antimony	BRL	3.5	<3.2	<3.7	NC	103			106			75 - 125	30	
Arsenic	BRL	0.70	1.04	0.87	NC	89.5			103			75 - 125	30	
Barium	BRL	0.35	20.8	19.9	4.40	89.7			103			75 - 125	30	
Beryllium	BRL	0.28	<0.25	<0.30	NC	90.5			108			75 - 125	30	
Cadmium	BRL	0.35	<0.32	<0.37	NC	85.1			107			75 - 125	30	
Chromium	BRL	0.35	6.25	6.43	2.80	90.7			108			75 - 125	30	
Copper	BRL	0.35	5.81	5.16	11.9	92.0			116			75 - 125	30	
Lead	BRL	0.35	1.68	1.59	NC	110			107			75 - 125	30	
Nickel	BRL	0.35	5.27	6.13	15.1	86.4			106			75 - 125	30	
Selenium	BRL	1.4	<1.3	<1.5	NC	101			97.2			75 - 125	30	
Silver	BRL	0.35	<0.32	<0.37	NC	104			125			75 - 125	30	
Thallium	BRL	3.2	<2.9	<3.3	NC	83.5			105			75 - 125	30	
Vanadium	BRL	0.35	10.7	10.3	3.80	96.0			107			75 - 125	30	
Zinc	BRL	0.35	13.3	13.2	0.80	107			108			75 - 125	30	

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

Environmental Laboratories, Inc.
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QA/QC Report

October 09, 2017

QA/QC Data

SDG I.D.: GBZ05324

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 402411 (mg/Kg), QC Sample No: BZ04431 50X (BZ05324, BZ05326)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.58	NC	97.0			106			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 402712 (mg/Kg), QC Sample No: BZ05327 50X (BZ05327)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.51	NC	105			105			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 403712 (mg/Kg), QC Sample No: BZ09607 50X (BZ05325)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	95.1			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 09, 2017

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402248 (mg/Kg), QC Sample No: BZ03565 (BZ05324, BZ05326)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	71	63	11.9	96	92	4.3	60 - 120	30	
% n-Pentacosane	57	%	64	55	15.1	84	80	4.9	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 402182 (ug/kg), QC Sample No: BZ03955 (BZ05324, BZ05326)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	67			52	54	3.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	64			47	49	4.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	62			43	45	4.5	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	71			63	61	3.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	58			40	41	2.5	30 - 130	30	
1,4-Dichlorobenzene	ND	230	60			42	43	2.4	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	72			66	61	7.9	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	70			62	59	5.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	76			61	62	1.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	71			58	60	3.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10			29	13	76.2	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	76			69	64	7.5	30 - 130	30	
2,6-Dinitrotoluene	ND	130	72			60	59	1.7	30 - 130	30	
2-Chloronaphthalene	ND	230	70			58	57	1.7	30 - 130	30	
2-Chlorophenol	ND	230	65			47	50	6.2	30 - 130	30	
2-Methylnaphthalene	ND	230	66			51	53	3.8	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	72			54	58	7.1	30 - 130	30	
2-Nitroaniline	ND	330	95			86	82	4.8	30 - 130	30	
2-Nitrophenol	ND	230	57			43	43	0.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	72			54	56	3.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82			82	76	7.6	30 - 130	30	
3-Nitroaniline	ND	330	88			76	74	2.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10			49	32	42.0	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	70			62	62	0.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	74			64	63	1.6	30 - 130	30	
4-Chloroaniline	ND	230	72			57	60	5.1	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	69			60	59	1.7	30 - 130	30	
4-Nitroaniline	ND	230	72			63	61	3.2	30 - 130	30	
4-Nitrophenol	ND	230	58			60	53	12.4	30 - 130	30	
Acenaphthene	ND	230	77			65	64	1.6	30 - 130	30	
Acenaphthylene	ND	130	66			59	56	5.2	30 - 130	30	
Acetophenone	ND	230	66			45	49	8.5	30 - 130	30	
Aniline	ND	330	67			47	50	6.2	30 - 130	30	
Anthracene	ND	230	73			66	66	0.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benz(a)anthracene	ND	230	71			64	61	4.8	30 - 130	30	
Benzidine	ND	330	36			46	53	14.1	30 - 130	30	
Benzo(a)pyrene	ND	130	72			63	61	3.2	30 - 130	30	
Benzo(b)fluoranthene	ND	160	85			74	71	4.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	67			54	56	3.6	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81			72	71	1.4	30 - 130	30	
Benzoic Acid	ND	330	<10			21	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	82			77	74	4.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	74			55	57	3.6	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	64			44	46	4.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	70			48	51	6.1	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	84			82	75	8.9	30 - 130	30	
Carbazole	ND	230	77			69	69	0.0	30 - 130	30	
Chrysene	ND	230	73			67	65	3.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	71			57	60	5.1	30 - 130	30	
Dibenzofuran	ND	230	72			61	60	1.7	30 - 130	30	
Diethyl phthalate	ND	230	73			64	62	3.2	30 - 130	30	
Dimethylphthalate	ND	230	72			64	61	4.8	30 - 130	30	
Di-n-butylphthalate	ND	670	75			65	65	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	79			75	70	6.9	30 - 130	30	
Fluoranthene	ND	230	68			57	59	3.4	30 - 130	30	
Fluorene	ND	230	73			64	62	3.2	30 - 130	30	
Hexachlorobenzene	ND	130	67			64	62	3.2	30 - 130	30	
Hexachlorobutadiene	ND	230	62			45	45	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	56			25	30	18.2	30 - 130	30	m
Hexachloroethane	ND	130	59			39	39	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67			55	55	0.0	30 - 130	30	
Isophorone	ND	130	67			52	54	3.8	30 - 130	30	
Naphthalene	ND	230	66			49	51	4.0	30 - 130	30	
Nitrobenzene	ND	130	68			47	50	6.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	31			23	24	4.3	30 - 130	30	m
N-Nitrosodi-n-propylamine	ND	130	74			51	53	3.8	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75			67	64	4.6	30 - 130	30	
Pentachloronitrobenzene	ND	230	64			59	58	1.7	30 - 130	30	
Pentachlorophenol	ND	230	39			62	49	23.4	30 - 130	30	
Phenanthrene	ND	130	72			64	63	1.6	30 - 130	30	
Phenol	ND	230	73			56	59	5.2	30 - 130	30	
Pyrene	ND	230	69			57	60	5.1	30 - 130	30	
Pyridine	ND	230	24			17	19	11.1	30 - 130	30	l,m
% 2,4,6-Tribromophenol	65	%	59			57	57	0.0	30 - 130	30	
% 2-Fluorobiphenyl	77	%	72			57	57	0.0	30 - 130	30	
% 2-Fluorophenol	59	%	54			41	45	9.3	30 - 130	30	
% Nitrobenzene-d5	70	%	67			45	50	10.5	30 - 130	30	
% Phenol-d5	74	%	66			48	54	11.8	30 - 130	30	
% Terphenyl-d14	75	%	68			53	59	10.7	30 - 130	30	

Comment:

LCSD not reported for this batch.

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

QA/QC Batch 402407 (ug/kg), QC Sample No: BZ04985 (BZ05324, BZ05326)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	121	120	0.8	112	119	6.1	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1-Trichloroethane	ND	5.0	111	114	2.7	108	117	8.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	119	113	5.2	107	110	2.8	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	115	111	3.5	105	110	4.7	70 - 130	30	
1,1-Dichloroethane	ND	5.0	109	110	0.9	112	115	2.6	70 - 130	30	
1,1-Dichloroethene	ND	5.0	103	104	1.0	92	98	6.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	111	112	0.9	111	119	7.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	116	116	0.0	134	142	5.8	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	111	103	7.5	101	105	3.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	107	106	0.9	118	123	4.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	112	111	0.9	108	115	6.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	132	121	8.7	112	120	6.9	70 - 130	30	I
1,2-Dibromoethane	ND	5.0	115	113	1.8	110	116	5.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	109	107	1.9	102	109	6.6	70 - 130	30	
1,2-Dichloroethane	ND	5.0	115	110	4.4	108	114	5.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0	113	114	0.9	110	116	5.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	110	109	0.9	106	113	6.4	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	108	106	1.9	102	108	5.7	70 - 130	30	
1,3-Dichloropropane	ND	5.0	111	109	1.8	106	113	6.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	105	104	1.0	101	107	5.8	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	118	0.0	111	119	7.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	105	106	0.9	104	111	6.5	70 - 130	30	
2-Hexanone	ND	25	105	100	4.9	98	99	1.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	103	1.0	99	106	6.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	107	105	1.9	101	107	5.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	111	105	5.6	97	98	1.0	70 - 130	30	
Acetone	ND	10	78	76	2.6	67	70	4.4	70 - 130	30	m
Acrylonitrile	ND	5.0	101	90	11.5	98	97	1.0	70 - 130	30	
Benzene	ND	1.0	110	110	0.0	109	115	5.4	70 - 130	30	
Bromobenzene	ND	5.0	110	107	2.8	103	109	5.7	70 - 130	30	
Bromochloromethane	ND	5.0	106	108	1.9	103	112	8.4	70 - 130	30	
Bromodichloromethane	ND	5.0	120	119	0.8	109	113	3.6	70 - 130	30	
Bromoform	ND	5.0	126	123	2.4	100	106	5.8	70 - 130	30	
Bromomethane	ND	5.0	95	92	3.2	54	57	5.4	70 - 130	30	m
Carbon Disulfide	ND	5.0	111	112	0.9	77	85	9.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	115	117	1.7	109	115	5.4	70 - 130	30	
Chlorobenzene	ND	5.0	107	106	0.9	103	111	7.5	70 - 130	30	
Chloroethane	ND	5.0	90	89	1.1	18	18	0.0	70 - 130	30	m
Chloroform	ND	5.0	107	109	1.9	100	106	5.8	70 - 130	30	
Chloromethane	ND	5.0	82	94	13.6	80	85	6.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	106	107	0.9	105	111	5.6	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	124	122	1.6	113	119	5.2	70 - 130	30	
Dibromochloromethane	ND	3.0	127	126	0.8	114	120	5.1	70 - 130	30	
Dibromomethane	ND	5.0	114	111	2.7	106	112	5.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	91	92	1.1	88	90	2.2	70 - 130	30	
Ethylbenzene	ND	1.0	106	107	0.9	103	113	9.3	70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	106	2.8	105	111	5.6	70 - 130	30	
Isopropylbenzene	ND	1.0	112	111	0.9	108	116	7.1	70 - 130	30	
m&p-Xylene	ND	2.0	108	108	0.0	104	112	7.4	70 - 130	30	
Methyl ethyl ketone	ND	5.0	97	93	4.2	97	95	2.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	101	97	4.0	104	105	1.0	70 - 130	30	
Methylene chloride	ND	5.0	91	86	5.6	83	87	4.7	70 - 130	30	
Naphthalene	ND	5.0	128	127	0.8	184	183	0.5	70 - 130	30	m
n-Butylbenzene	ND	1.0	113	112	0.9	106	113	6.4	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
n-Propylbenzene	ND	1.0	104	105	1.0	101	108	6.7	70 - 130	30	
o-Xylene	ND	2.0	113	115	1.8	111	119	7.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	113	113	0.0	110	115	4.4	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	115	0.9	112	118	5.2	70 - 130	30	
Styrene	ND	5.0	112	112	0.0	108	116	7.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	111	110	0.9	107	114	6.3	70 - 130	30	
Tetrachloroethene	ND	5.0	111	110	0.9	109	116	6.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	99	91	8.4	94	92	2.2	70 - 130	30	
Toluene	ND	1.0	112	111	0.9	109	114	4.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	107	108	0.9	108	113	4.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	124	119	4.1	107	115	7.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	128	120	6.5	103	106	2.9	70 - 130	30	
Trichloroethene	ND	5.0	108	108	0.0	105	111	5.6	70 - 130	30	
Trichlorofluoromethane	ND	5.0	89	89	0.0	18	17	5.7	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	93	92	1.1	85	90	5.7	70 - 130	30	
Vinyl chloride	ND	5.0	97	99	2.0	75	79	5.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	104	99	4.9	102	97	5.0	70 - 130	30	
% Bromofluorobenzene	101	%	101	101	0.0	101	103	2.0	70 - 130	30	
% Dibromofluoromethane	87	%	100	101	1.0	98	100	2.0	70 - 130	30	
% Toluene-d8	99	%	103	102	1.0	102	102	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 402798 (ug/kg), QC Sample No: BZ06088 (BZ05327)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	101	102	1.0	111			70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	96	101	5.1	105			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	97	102	5.0	115			70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	100	99	1.0	95			70 - 130	30	
1,1-Dichloroethane	ND	5.0	110	103	6.6	96			70 - 130	30	
1,1-Dichloroethene	ND	5.0	99	93	6.3	88			70 - 130	30	
1,1-Dichloropropene	ND	5.0	99	97	2.0	83			70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	99	103	4.0	32			70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	89	95	6.5	113			70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	96	107	10.8	34			70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	91	102	11.4	70			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	100	109	8.6	98			70 - 130	30	
1,2-Dibromoethane	ND	5.0	100	100	0.0	88			70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	96	101	5.1	64			70 - 130	30	m
1,2-Dichloroethane	ND	5.0	101	99	2.0	95			70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	94	1.1	94			70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	93	103	10.2	85			70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	100	102	2.0	64			70 - 130	30	m
1,3-Dichloropropane	ND	5.0	96	94	2.1	98			70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	103	6.0	57			70 - 130	30	m
2,2-Dichloropropane	ND	5.0	116	113	2.6	114			70 - 130	30	
2-Chlorotoluene	ND	5.0	98	105	6.9	81			70 - 130	30	
2-Hexanone	ND	25	99	100	1.0	41			70 - 130	30	m
2-Isopropyltoluene	ND	5.0	104	109	4.7	87			70 - 130	30	
4-Chlorotoluene	ND	5.0	98	102	4.0	71			70 - 130	30	
4-Methyl-2-pentanone	ND	25	105	94	11.1	64			70 - 130	30	m
Acetone	ND	10	90	95	5.4	97			70 - 130	30	
Acrylonitrile	ND	5.0	114	115	0.9	70			70 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzene	ND	1.0	99	97	2.0	90			70 - 130	30	
Bromobenzene	ND	5.0	99	107	7.8	78			70 - 130	30	
Bromochloromethane	ND	5.0	96	97	1.0	92			70 - 130	30	
Bromodichloromethane	ND	5.0	103	102	1.0	101			70 - 130	30	
Bromoform	ND	5.0	110	114	3.6	100			70 - 130	30	
Bromomethane	ND	5.0	116	112	3.5	95			70 - 130	30	
Carbon Disulfide	ND	5.0	102	105	2.9	47			70 - 130	30	m
Carbon tetrachloride	ND	5.0	109	110	0.9	111			70 - 130	30	
Chlorobenzene	ND	5.0	99	98	1.0	77			70 - 130	30	
Chloroethane	ND	5.0	99	103	4.0	105			70 - 130	30	
Chloroform	ND	5.0	98	94	4.2	99			70 - 130	30	
Chloromethane	ND	5.0	89	84	5.8	92			70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	93	5.2	83			70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	102	100	2.0	78			70 - 130	30	
Dibromochloromethane	ND	3.0	111	104	6.5	106			70 - 130	30	
Dibromomethane	ND	5.0	101	96	5.1	82			70 - 130	30	
Dichlorodifluoromethane	ND	5.0	85	79	7.3	115			70 - 130	30	
Ethylbenzene	ND	1.0	95	98	3.1	81			70 - 130	30	
Hexachlorobutadiene	ND	5.0	106	108	1.9	35			70 - 130	30	m
Isopropylbenzene	ND	1.0	96	107	10.8	100			70 - 130	30	
m&p-Xylene	ND	2.0	101	96	5.1	80			70 - 130	30	
Methyl ethyl ketone	ND	5.0	102	103	1.0	78			70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	103	100	3.0	119			70 - 130	30	
Methylene chloride	ND	5.0	91	96	5.3	99			70 - 130	30	
Naphthalene	ND	5.0	101	108	6.7	27			70 - 130	30	m
n-Butylbenzene	ND	1.0	97	100	3.0	52			70 - 130	30	m
n-Propylbenzene	ND	1.0	99	101	2.0	81			70 - 130	30	
o-Xylene	ND	2.0	103	102	1.0	87			70 - 130	30	
p-Isopropyltoluene	ND	1.0	95	106	10.9	65			70 - 130	30	m
sec-Butylbenzene	ND	1.0	102	108	5.7	80			70 - 130	30	
Styrene	ND	5.0	101	96	5.1	65			70 - 130	30	m
tert-Butylbenzene	ND	1.0	97	101	4.0	85			70 - 130	30	
Tetrachloroethene	ND	5.0	108	103	4.7	84			70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	94	96	2.1	102			70 - 130	30	
Toluene	ND	1.0	97	96	1.0	76			70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	99	97	2.0	70			70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	103	100	3.0	69			70 - 130	30	m
trans-1,4-dichloro-2-butene	ND	5.0	102	115	12.0	77			70 - 130	30	
Trichloroethene	ND	5.0	105	99	5.9	84			70 - 130	30	
Trichlorofluoromethane	ND	5.0	113	107	5.5	117			70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	101	0.0	102			70 - 130	30	
Vinyl chloride	ND	5.0	98	93	5.2	93			70 - 130	30	
% 1,2-dichlorobenzene-d4	103	%	99	105	5.9	92			70 - 130	30	
% Bromofluorobenzene	94	%	100	96	4.1	92			70 - 130	30	
% Dibromofluoromethane	108	%	103	96	7.0	102			70 - 130	30	
% Toluene-d8	96	%	101	98	3.0	100			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 402586 (mg/Kg), QC Sample No: BZ07436 (BZ05327)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	97	83	15.6	91	75	19.3	60 - 120	30	
% n-Pentacosane	74	%	75	85	12.5	94	82	13.6	50 - 150	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
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 402610 (ug/kg), QC Sample No: BZ07436 (BZ05327)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	64	60	6.5	56	59	5.2	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	61	56	8.5	54	56	3.6	30 - 130	30	
1,2-Dichlorobenzene	ND	180	58	51	12.8	52	53	1.9	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	66	65	1.5	61	64	4.8	30 - 130	30	
1,3-Dichlorobenzene	ND	230	56	49	13.3	49	49	0.0	30 - 130	30	
1,4-Dichlorobenzene	ND	230	58	50	14.8	50	52	3.9	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	67	67	0.0	60	64	6.5	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	66	65	1.5	55	61	10.3	30 - 130	30	
2,4-Dichlorophenol	ND	130	68	64	6.1	56	62	10.2	30 - 130	30	
2,4-Dimethylphenol	ND	230	70	67	4.4	59	66	11.2	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	39	40	2.5	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	70	70	0.0	64	69	7.5	30 - 130	30	
2,6-Dinitrotoluene	ND	130	70	71	1.4	62	67	7.8	30 - 130	30	
2-Chloronaphthalene	ND	230	68	65	4.5	60	63	4.9	30 - 130	30	
2-Chlorophenol	ND	230	64	58	9.8	55	59	7.0	30 - 130	30	
2-Methylnaphthalene	ND	230	61	59	3.3	56	59	5.2	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	70	64	9.0	57	63	10.0	30 - 130	30	
2-Nitroaniline	ND	330	90	86	4.5	79	84	6.1	30 - 130	30	
2-Nitrophenol	ND	230	55	51	7.5	47	50	6.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	69	66	4.4	59	67	12.7	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	67	69	2.9	56	65	14.9	30 - 130	30	
3-Nitroaniline	ND	330	84	81	3.6	71	75	5.5	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	46	49	6.3	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	69	66	4.4	60	65	8.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	68	68	0.0	62	64	3.2	30 - 130	30	
4-Chloroaniline	ND	230	65	63	3.1	53	55	3.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	68	65	4.5	60	63	4.9	30 - 130	30	
4-Nitroaniline	ND	230	67	65	3.0	58	62	6.7	30 - 130	30	
4-Nitrophenol	ND	230	64	59	8.1	56	59	5.2	30 - 130	30	
Acenaphthene	ND	230	73	72	1.4	65	68	4.5	30 - 130	30	
Acenaphthylene	ND	130	66	64	3.1	60	63	4.9	30 - 130	30	
Acetophenone	ND	230	61	55	10.3	52	58	10.9	30 - 130	30	
Aniline	ND	330	55	56	1.8	46	46	0.0	30 - 130	30	
Anthracene	ND	230	74	71	4.1	65	70	7.4	30 - 130	30	
Benz(a)anthracene	ND	230	67	67	0.0	64	65	1.6	30 - 130	30	
Benzidine	ND	330	45	38	16.9	12	13	8.0	30 - 130	30	m
Benzo(a)pyrene	ND	130	64	63	1.6	53	56	5.5	30 - 130	30	
Benzo(b)fluoranthene	ND	160	66	64	3.1	59	63	6.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	78	76	2.6	38	48	23.3	30 - 130	30	
Benzo(k)fluoranthene	ND	230	69	70	1.4	66	64	3.1	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	27	25	7.7	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	69	69	0.0	56	59	5.2	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	68	62	9.2	58	61	5.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	54	46	16.0	48	51	6.1	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	49	44	10.8	43	46	6.7	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	76	76	0.0	64	71	10.4	30 - 130	30	
Carbazole	ND	230	75	73	2.7	66	70	5.9	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chrysene	ND	230	73	72	1.4	63	68	7.6	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	78	76	2.6	43	55	24.5	30 - 130	30	
Dibenzofuran	ND	230	69	68	1.5	62	64	3.2	30 - 130	30	
Diethyl phthalate	ND	230	67	66	1.5	59	62	5.0	30 - 130	30	
Dimethylphthalate	ND	230	70	68	2.9	61	64	4.8	30 - 130	30	
Di-n-butylphthalate	ND	670	76	75	1.3	63	66	4.7	30 - 130	30	
Di-n-octylphthalate	ND	230	74	74	0.0	59	66	11.2	30 - 130	30	
Fluoranthene	ND	230	73	71	2.8	63	63	0.0	30 - 130	30	
Fluorene	ND	230	71	69	2.9	63	68	7.6	30 - 130	30	
Hexachlorobenzene	ND	130	70	67	4.4	59	65	9.7	30 - 130	30	
Hexachlorobutadiene	ND	230	59	53	10.7	52	51	1.9	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	55	48	13.6	12	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	54	47	13.9	46	45	2.2	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	73	71	2.8	40	49	20.2	30 - 130	30	
Isophorone	ND	130	59	55	7.0	50	53	5.8	30 - 130	30	
Naphthalene	ND	230	63	59	6.6	58	59	1.7	30 - 130	30	
Nitrobenzene	ND	130	58	54	7.1	51	56	9.3	30 - 130	30	
N-Nitrosodimethylamine	ND	230	55	51	7.5	48	54	11.8	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	60	57	5.1	53	60	12.4	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	72	71	1.4	64	68	6.1	30 - 130	30	
Pentachloronitrobenzene	ND	230	71	69	2.9	60	64	6.5	30 - 130	30	
Pentachlorophenol	ND	230	33	24	31.6	43	47	8.9	30 - 130	30	l,r
Phenanthrene	ND	130	71	68	4.3	66	69	4.4	30 - 130	30	
Phenol	ND	230	66	60	9.5	55	64	15.1	30 - 130	30	
Pyrene	ND	230	74	73	1.4	63	62	1.6	30 - 130	30	
Pyridine	ND	230	42	37	12.7	37	42	12.7	30 - 130	30	
% 2,4,6-Tribromophenol	60	%	65	64	1.6	54	60	10.5	30 - 130	30	
% 2-Fluorobiphenyl	66	%	66	65	1.5	57	62	8.4	30 - 130	30	
% 2-Fluorophenol	59	%	61	55	10.3	50	57	13.1	30 - 130	30	
% Nitrobenzene-d5	59	%	58	55	5.3	52	58	10.9	30 - 130	30	
% Phenol-d5	62	%	64	60	6.5	53	61	14.0	30 - 130	30	
% Terphenyl-d14	74	%	71	72	1.4	56	56	0.0	30 - 130	30	

Comment:

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

QA/QC Batch 403372 (mg/Kg), QC Sample No: BZ10600 (BZ05325)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	82	88	7.1	111	112	0.9	60 - 120	30	
% n-Pentacosane	63	%	64	62	3.2	81	81	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 403930 (ug/kg), QC Sample No: BZ11343 (BZ05325 (200X))

Volatiles - Soil

1,2,4-Trimethylbenzene	ND	1.0	95	92	3.2	77	66	15.4	70 - 130	30	m
1,3,5-Trimethylbenzene	ND	1.0	96	94	2.1	80	67	17.7	70 - 130	30	m
Ethylbenzene	ND	1.0	94	94	0.0	82	77	6.3	70 - 130	30	
Isopropylbenzene	ND	1.0	96	92	4.3	83	72	14.2	70 - 130	30	
m&p-Xylene	ND	2.0	91	92	1.1	79	73	7.9	70 - 130	30	
Naphthalene	ND	5.0	95	97	2.1	62	55	12.0	70 - 130	30	m
o-Xylene	ND	2.0	93	94	1.1	83	77	7.5	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
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 403563 (ug/kg), QC Sample No: BZ11514 (BZ05325)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	55	53	3.7	43			30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	51	49	4.0	40			30 - 130	30	
1,2-Dichlorobenzene	ND	180	50	49	2.0	40			30 - 130	30	
1,2-Diphenylhydrazine	ND	230	70	69	1.4	55			30 - 130	30	
1,3-Dichlorobenzene	ND	230	47	46	2.2	37			30 - 130	30	
1,4-Dichlorobenzene	ND	230	49	49	0.0	40			30 - 130	30	
2,4,5-Trichlorophenol	ND	230	62	60	3.3	49			30 - 130	30	
2,4,6-Trichlorophenol	ND	130	60	58	3.4	48			30 - 130	30	
2,4-Dichlorophenol	ND	130	58	56	3.5	46			30 - 130	30	
2,4-Dimethylphenol	ND	230	64	60	6.5	51			30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	16			30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	65	63	3.1	50			30 - 130	30	
2,6-Dinitrotoluene	ND	130	71	68	4.3	55			30 - 130	30	
2-Chloronaphthalene	ND	230	61	59	3.3	47			30 - 130	30	
2-Chlorophenol	ND	230	55	53	3.7	42			30 - 130	30	
2-Methylnaphthalene	ND	230	56	54	3.6	44			30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	59	57	3.4	45			30 - 130	30	
2-Nitroaniline	ND	330	110	104	5.6	84			30 - 130	30	
2-Nitrophenol	ND	230	75	69	8.3	59			30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	68	65	4.5	53			30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	84	81	3.6	60			30 - 130	30	
3-Nitroaniline	ND	330	75	72	4.1	57			30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	26			30 - 130	30	l,m
4-Bromophenyl phenyl ether	ND	230	61	58	5.0	46			30 - 130	30	
4-Chloro-3-methylphenol	ND	230	66	63	4.7	53			30 - 130	30	
4-Chloroaniline	ND	230	74	71	4.1	59			30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	70	68	2.9	54			30 - 130	30	
4-Nitroaniline	ND	230	78	75	3.9	60			30 - 130	30	
4-Nitrophenol	ND	230	92	80	14.0	73			30 - 130	30	
Acenaphthene	ND	230	69	67	2.9	53			30 - 130	30	
Acenaphthylene	ND	130	61	59	3.3	47			30 - 130	30	
Acetophenone	ND	230	57	55	3.6	44			30 - 130	30	
Aniline	ND	330	54	52	3.8	40			30 - 130	30	
Anthracene	ND	230	67	63	6.2	52			30 - 130	30	
Benz(a)anthracene	ND	230	66	64	3.1	51			30 - 130	30	
Benzidine	ND	330	44	36	20.0	14			30 - 130	30	m
Benzo(a)pyrene	ND	130	63	61	3.2	49			30 - 130	30	
Benzo(b)fluoranthene	ND	160	65	63	3.1	50			30 - 130	30	
Benzo(ghi)perylene	ND	230	63	59	6.6	49			30 - 130	30	
Benzo(k)fluoranthene	ND	230	68	65	4.5	54			30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	18			30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	73	69	5.6	55			30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	60	57	5.1	46			30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	47	46	2.2	36			30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	57	57	0.0	45			30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	74	70	5.6	56			30 - 130	30	
Carbazole	ND	230	67	64	4.6	52			30 - 130	30	
Chrysene	ND	230	69	66	4.4	53			30 - 130	30	

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibenz(a,h)anthracene	ND	130	68	65	4.5	53			30 - 130	30
Dibenzofuran	ND	230	64	62	3.2	49			30 - 130	30
Diethyl phthalate	ND	230	68	66	3.0	52			30 - 130	30
Dimethylphthalate	ND	230	65	62	4.7	49			30 - 130	30
Di-n-butylphthalate	ND	670	71	66	7.3	53			30 - 130	30
Di-n-octylphthalate	ND	230	72	69	4.3	55			30 - 130	30
Fluoranthene	ND	230	66	63	4.7	50			30 - 130	30
Fluorene	ND	230	69	67	2.9	54			30 - 130	30
Hexachlorobenzene	ND	130	70	66	5.9	55			30 - 130	30
Hexachlorobutadiene	ND	230	52	50	3.9	40			30 - 130	30
Hexachlorocyclopentadiene	ND	230	65	60	8.0	51			30 - 130	30
Hexachloroethane	ND	130	50	49	2.0	41			30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	64	61	4.8	50			30 - 130	30
Isophorone	ND	130	59	57	3.4	47			30 - 130	30
Naphthalene	ND	230	56	54	3.6	44			30 - 130	30
Nitrobenzene	ND	130	64	63	1.6	50			30 - 130	30
N-Nitrosodimethylamine	ND	230	57	55	3.6	48			30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	66	64	3.1	51			30 - 130	30
N-Nitrosodiphenylamine	ND	130	67	65	3.0	51			30 - 130	30
Pentachloronitrobenzene	ND	230	68	66	3.0	52			30 - 130	30
Pentachlorophenol	ND	230	38	38	0.0	57			30 - 130	30
Phenanthrene	ND	130	66	63	4.7	51			30 - 130	30
Phenol	ND	230	57	57	0.0	44			30 - 130	30
Pyrene	ND	230	66	63	4.7	49			30 - 130	30
Pyridine	ND	230	40	41	2.5	37			30 - 130	30
% 2,4,6-Tribromophenol	55	%	85	80	6.1	70			30 - 130	30
% 2-Fluorobiphenyl	43	%	61	59	3.3	47			30 - 130	30
% 2-Fluorophenol	31	%	49	48	2.1	37			30 - 130	30
% Nitrobenzene-d5	44	%	61	59	3.3	47			30 - 130	30
% Phenol-d5	38	%	59	57	3.4	45			30 - 130	30
% Terphenyl-d14	47	%	66	63	4.7	49			30 - 130	30

Comment:

MSD not reported for this batch

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

QA/QC Batch 403775 (ug/kg), QC Sample No: BZ12384 (BZ05325)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	117	100	15.7	96	111	14.5	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	113	97	15.2	93	108	14.9	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	115	93	21.2	88	104	16.7	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	112	92	19.6	87	102	15.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	115	96	18.0	93	108	14.9	70 - 130	30
1,1-Dichloroethene	ND	5.0	109	93	15.8	90	105	15.4	70 - 130	30
1,1-Dichloropropene	ND	5.0	113	96	16.3	93	109	15.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	106	89	17.4	81	90	10.5	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	107	86	21.8	80	95	17.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	100	84	17.4	76	82	7.6	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	111	96	14.5	80	99	21.2	70 - 130	30
1,2-Dibromoethane	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	109	91	18.0	88	100	12.8	70 - 130	30
1,2-Dichloroethane	ND	5.0	112	93	18.5	89	103	14.6	70 - 130	30
1,2-Dichloropropane	ND	5.0	113	96	16.3	93	106	13.1	70 - 130	30

QA/QC Data

SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3-Dichlorobenzene	ND	5.0	110	90	20.0	88	101	13.8	70 - 130	30	
1,3-Dichloropropane	ND	5.0	110	90	20.0	87	103	16.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	108	89	19.3	85	98	14.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	100	16.5	86	103	18.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	110	92	17.8	91	106	15.2	70 - 130	30	
2-Hexanone	ND	25	85	69	20.8	67	75	11.3	70 - 130	30	l,m
2-Isopropyltoluene	ND	5.0	108	90	18.2	89	103	14.6	70 - 130	30	
4-Chlorotoluene	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	76	18.0	68	78	13.7	70 - 130	30	m
Acetone	ND	10	82	70	15.8	46	55	17.8	70 - 130	30	m
Acrylonitrile	ND	5.0	101	88	13.8	74	85	13.8	70 - 130	30	
Benzene	ND	1.0	112	95	16.4	93	108	14.9	70 - 130	30	
Bromobenzene	ND	5.0	112	93	18.5	90	107	17.3	70 - 130	30	
Bromochloromethane	ND	5.0	109	91	18.0	85	98	14.2	70 - 130	30	
Bromodichloromethane	ND	5.0	118	100	16.5	93	110	16.7	70 - 130	30	
Bromoform	ND	5.0	116	98	16.8	84	100	17.4	70 - 130	30	
Bromomethane	ND	5.0	125	101	21.2	94	114	19.2	70 - 130	30	
Carbon Disulfide	ND	5.0	120	101	17.2	90	110	20.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	119	99	18.3	96	112	15.4	70 - 130	30	
Chlorobenzene	ND	5.0	110	92	17.8	90	105	15.4	70 - 130	30	
Chloroethane	ND	5.0	109	94	14.8	89	105	16.5	70 - 130	30	
Chloroform	ND	5.0	110	96	13.6	93	106	13.1	70 - 130	30	
Chloromethane	ND	5.0	104	89	15.5	87	94	7.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	113	95	17.3	92	106	14.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	121	102	17.0	96	110	13.6	70 - 130	30	
Dibromochloromethane	ND	3.0	126	103	20.1	96	114	17.1	70 - 130	30	
Dibromomethane	ND	5.0	112	93	18.5	88	101	13.8	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	131	112	15.6	96	115	18.0	70 - 130	30	l
Hexachlorobutadiene	ND	5.0	110	93	16.7	86	97	12.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	89	78	13.2	62	74	17.6	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	112	96	15.4	87	102	15.9	70 - 130	30	
Methylene chloride	ND	5.0	104	88	16.7	83	98	16.6	70 - 130	30	
n-Butylbenzene	ND	1.0	110	91	18.9	87	97	10.9	70 - 130	30	
n-Propylbenzene	ND	1.0	110	91	18.9	90	103	13.5	70 - 130	30	
p-Isopropyltoluene	ND	1.0	112	95	16.4	91	105	14.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	97	17.8	95	112	16.4	70 - 130	30	
Styrene	ND	5.0	111	92	18.7	90	105	15.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	114	95	18.2	95	111	15.5	70 - 130	30	
Tetrachloroethene	ND	5.0	112	94	17.5	91	105	14.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	94	79	17.3	68	78	13.7	70 - 130	30	m
Toluene	ND	1.0	113	94	18.4	94	109	14.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	109	92	16.9	90	102	12.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	116	97	17.8	88	100	12.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	119	98	19.4	82	95	14.7	70 - 130	30	
Trichloroethene	ND	5.0	114	96	17.1	92	108	16.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	102	87	15.9	82	96	15.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	89	17.4	84	96	13.3	70 - 130	30	
Vinyl chloride	ND	5.0	109	92	16.9	87	102	15.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	102	101	1.0	100	98	2.0	70 - 130	30	
% Bromofluorobenzene	101	%	98	101	3.0	97	99	2.0	70 - 130	30	
% Dibromofluoromethane	90	%	101	102	1.0	104	100	3.9	70 - 130	30	
% Toluene-d8	97	%	99	100	1.0	102	102	0.0	70 - 130	30	

QA/QC Data

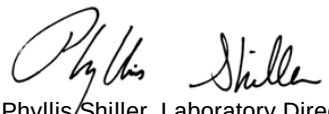
SDG I.D.: GBZ05324

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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 403813 (ug/L), QC Sample No: BZ12493 (BZ05325)										
Semivolatiles by SIM										
2-Methylnaphthalene	ND	0.05	63	60	4.9				30 - 130	20
Acenaphthene	ND	0.05	78	76	2.6				30 - 130	20
Acenaphthylene	ND	0.04	74	71	4.1				30 - 130	20
Anthracene	ND	0.02	87	84	3.5				30 - 130	20
Benz(a)anthracene	ND	0.02	82	81	1.2				30 - 130	20
Benzo(a)pyrene	ND	0.02	82	77	6.3				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	97	92	5.3				30 - 130	20
Benzo(ghi)perylene	ND	0.02	61	63	3.2				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	86	85	1.2				30 - 130	20
Chrysene	ND	0.02	83	81	2.4				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	80	74	7.8				30 - 130	20
Fluoranthene	ND	0.04	84	85	1.2				30 - 130	20
Fluorene	ND	0.05	84	80	4.9				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	72	69	4.3				30 - 130	20
Naphthalene	ND	0.05	57	51	11.1				30 - 130	20
Phenanthrene	ND	0.05	77	76	1.3				30 - 130	20
Pyrene	ND	0.02	87	89	2.3				30 - 130	20
% 2-Fluorobiphenyl	65	%	71	68	4.3				30 - 130	20
% Nitrobenzene-d5	56	%	53	48	9.9				30 - 130	20
% Terphenyl-d14	80	%	89	90	1.1				30 - 130	20
Comment:										
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)										

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
October 09, 2017

Monday, October 09, 2017
Criteria: CT: GBM, RC
State: CT

Sample Criteria Exceedances Report

GBZ05324 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ05325	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	770	770	ug/Kg
BZ05325	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	900	900	ug/Kg
BZ05325	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	900	900	ug/Kg
BZ05325	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3500	1400	1400	ug/Kg
BZ05325	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	200	200	ug/Kg
BZ05325	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3500	3100	3100	ug/Kg
BZ05325	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2100	200	200	ug/Kg
BZ05325	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	200	200	ug/Kg
BZ05325	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2500	1000	1000	ug/Kg
BZ05325	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ05325	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2200	1000	1000	ug/Kg
BZ05325	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ05325	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2500	2000	2000	ug/Kg
BZ05325	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2100	1000	1000	ug/Kg
BZ05325	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3800	2000	2000	ug/Kg
BZ05325	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5300	2000	2000	ug/Kg
BZ05325	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ05325	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ05325	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	12000	5300	5600	5600	ug/Kg
BZ05325	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1200	1200	ug/Kg
BZ05325	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2900	1400	1400	ug/Kg
BZ05325	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ05325	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1400	1400	ug/Kg
BZ05325	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3800	2800	2800	ug/Kg
BZ05325	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ05325	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ05325	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5300	2000	2000	ug/Kg
BZ05325	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ05325	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	ND	2500	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ05325	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ05325	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1400	1400	ug/Kg
BZ05325	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ05325	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2600	1000	1000	ug/Kg
BZ05325	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ05325	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg

Monday, October 09, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ05324 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ05325	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2800	1000	1000	ug/Kg
BZ05325	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	2200	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ05325	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg
BZ05325	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	5300	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: SB-14 (18-19 FT) ***Project Number:***

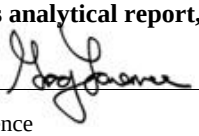
Laboratory Sample ID(s): BZ05324-BZ05327 ***Sampling Date(s):*** 9/20/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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 Section: VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Monday, October 09, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 09, 2017

SDG I.D.: GBZ05324

Cyanide Narration

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

Instrument:

LACHAT 09/22/17-1 Dustin Harrison, Greg Danielewski, Chemist 09/22/17

BZ05324, BZ05326

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 09/26/17-1 Dustin Harrison, Chemist 09/26/17

BZ05327

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 10/03/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/03/17

BZ05325

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 402411 (BZ04431)

BZ05324, BZ05326

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

Batch 403712 (BZ09607)

BZ05325

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

October 09, 2017

SDG I.D.: GBZ05324

Cyanide Narration

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

QC (Site Specific):

Batch 402712 (BZ05327)

BZ05327

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

ETPH Narration

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

Instrument:

AU-FID21 09/30/17-1 Jeff Bucko, Chemist 09/30/17

BZ05325

The initial calibration (ETPH819I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID84 09/25/17-1 Jeff Bucko, Chemist 09/25/17

BZ05327

The initial calibration (ETPH830I) 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 09/21/17-1 Jeff Bucko, Chemist 09/21/17

BZ05324, BZ05326

The initial calibration (ETPH818I) 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 402248 (BZ03565)

BZ05324, BZ05326

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.

Batch 402586 (BZ07436)

BZ05327

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

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October 09, 2017

SDG I.D.: GBZ05324

ETPH Narration

normalized based on the alkane calibration.

Batch 403372 (BZ10600)

BZ05325

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

Mercury Narration

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

Instrument:

MERLIN 09/21/17 08:22 Rick Schweitzer, Chemist 09/21/17

BZ05324

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

MERLIN 09/25/17 09:18 Rick Schweitzer, Chemist 09/25/17

BZ05326

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

MERLIN 09/26/17 08:00 Rick Schweitzer, Chemist 09/26/17

BZ05324, BZ05327

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

MERLIN 10/02/17 08:59 Rick Schweitzer, Chemist 10/02/17

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October 09, 2017

SDG I.D.: GBZ05324

Mercury Narration

BZ05325

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 402297 (BZ05210)

BZ05324

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

Batch 402919 (BZ04866)

BZ05324, BZ05327

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

QC (Site Specific):

Batch 402757 (BZ05326)

BZ05326

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

Batch 403509 (BZ05325)

BZ05325

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.

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SDG I.D.: GBZ05324

Mercury Narration

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

ICP Metals Narration

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

Instrument:

ARCOS 09/21/17 09:34 Mike Arsenault, Chemist 09/21/17

BZ05324, BZ05326

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

ARCOS 09/22/17 10:16 Mike Arsenault, Chemist 09/22/17

BZ05327

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

ARCOS 09/29/17 06:20 Mike Arsenault, Chemist 09/29/17

BZ05325

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

BLUE 09/22/17 10:28 Mike Arsenault, Chemist 09/22/17

BZ05324

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

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SDG I.D.: GBZ05324

ICP Metals Narration

QC (Batch Specific):

Batch 402254 (BZ05362)

BZ05324, BZ05326

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

Batch 402303 (BZ02576)

BZ05324

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

Batch 402637 (BZ07290)

BZ05327

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

Batch 403433 (BZ11170)

BZ05325

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

SVOA Narration

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

Instrument:

CHEM05 10/04/17-1 Damien Drobinski, Chemist 10/04/17

BZ05325

Initial Calibration Verification (CHEM05/SPLIT_0907):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/1004_02-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: Acenaphthene 0.896 (0.9)
The following compounds did not meet minimum response factors: None.

CHEM06 10/02/17-1 Damien Drobinski, Chemist 10/02/17

BZ05325

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

Initial Calibration Verification (CHEM06/SPLIT_0925):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 51% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Bis(2-chloroethoxy)methane

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SDG I.D.: GBZ05324

SVOA Narration

0.291 (0.3), Hexachlorobenzene 0.076 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1002_02-SPLIT_0925):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 69%H (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 69%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.051 (0.1), Acenaphthene 0.888 (0.9), Hexachlorobenzene 0.068 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM19 09/20/17-1 Damien Drobinski, Chemist 09/20/17

BZ05324, BZ05326

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0920_04-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: N-Nitrosodimethylamine 45%L (30%), Pyridine 51%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 45%L (40%), Pyridine 51%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1), Hexachlorobenzene 0.080 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 09/22/17-2 Damien Drobinski, Chemist 09/22/17

BZ05327

Initial Calibration Verification (CHEM27/SPLIT_0908):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.095 (0.1), Bis(2-chloroethoxy)methane 0.271 (0.3), Hexachlorobenzene 0.087 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/0922_06-SPLIT_0908):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.080 (0.1), Bis(2-chloroethoxy)methane 0.257 (0.3), Hexachlorobenzene 0.077 (0.1)
The following compounds did not meet minimum response factors: None.

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SVOA Narration

QC (Batch Specific):

Batch 402182 (BZ03955)

BZ05324, BZ05326

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pyridine(24%)
LCSD not reported for this batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 402610 (BZ07436)

BZ05327

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(24%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: Pentachlorophenol(31.6%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 403563 (BZ11514)

BZ05325

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
MSD not reported for this batch
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

Instrument:

CHEM07 10/03/17-2 Damien Drobinski, Chemist 10/03/17

BZ05325

Initial Calibration Verification (CHEM07/BNSIM_0926):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1003_30-BNSIM_0926):
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.

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SDG I.D.: GBZ05324

SVOASIM Narration

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 403813 (BZ12493)

BZ05325

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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 402407 (Samples: BZ05324, BZ05326): -----

The LCS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (1,2-Dibromo-3-chloropropane)

Instrument:

CHEM03 09/23/17-1 Jane Li, Chemist 09/23/17

BZ05327

Initial Calibration Verification (CHEM03/VT-L0918):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Tetrachloroethene 0.173 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0923L02-VT-L0918):
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.

CHEM14 09/20/17-2 Jane Li, Chemist 09/20/17

BZ05324, BZ05326

Initial Calibration Verification (CHEM14/VT-0920):
93% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Bromoform 24% (20%), Methylene chloride 21% (20%), Naphthalene 28% (20%), trans-1,3-Dichloropropene 25% (20%), trans-1,4-dichloro-2-butene 39% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

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SDG I.D.: GBZ05324

VOA Narration

Continuing Calibration Verification (CHEM14/0920_23-VT-0920):
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.

CHEM14 09/29/17-2 Jane Li, Chemist 09/29/17

BZ05325

Initial Calibration Verification (CHEM14/VT-0928A):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromoform 29% (20%), trans-1,4-dichloro-2-butene 34% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0929_34-VT-0928A):
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.

CHEM18 10/02/17-1 Jane Li, Chemist 10/02/17

BZ05325

Initial Calibration Verification (CHEM18/VT-M0925):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM18/1002M02-VT-M0925):
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 402407 (BZ04985)

BZ05324, BZ05326

All LCS recoveries were within 70 - 130 with the following exceptions: 1,2-Dibromo-3-chloropropane(132%)
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.

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SDG I.D.: GBZ05324

VOA Narration

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

Batch 402798 (BZ06088)

BZ05327

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

Batch 403775 (BZ12384)

BZ05325

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(131%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(69%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 403930 (BZ11343)

BZ05325

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

Temperature Narration

The samples were received at 2.3C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 2.3° C Pg 1 of 1

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CHAIN OF CUSTODY RECORD

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Client Services (860) 645-8726

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwiley@TIGHEBOND.COM

Customer: Tighe + Bond Inc.
Address: 213 Court Street 7th
Middletown CT

Project: Rockville MGP Site
Report to: Lynn Wiley
Invoice to: Tighe + Bond Westfield

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Steven Carey Daniel Connolly Date: 9/20/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260C	SVOCs 8270C	CT EPH	CT DEP RSR Metals	SPLP CT DEP RSR Metals	Total Cyanide 9012	SPLP PAH's 8270C/1311	Soil VOA Vials [ ] methanol [3] H2O	GL Soil container (4) 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
05324	SB-14 (18-19')	S	9/20/17	1000	X	X	X	X	X	X	X	3	1								
05325	SB-14 (23-24')	↓	↓	1015	Hold							3	1								
05326	SB-16 (22-24')			1335	X	X	X	X		X		3	1								
05327	SB-16 (30-32')	↓	↓	1400	Hold							3	1								

Relinquished by:	Accepted by:	Date:	Time:
DSC	Quadrive	9/20/17	1711

Comments, Special Requirements or Regulations:
Quote: T10125 17BA
Rockville Eversource MGP Site
Hold: SB-14(23-24') + SB-16(30-32')

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

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

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[X] 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
DSC

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

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

State where samples were collected: CT

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 303 of 1005

Client Services

Subject: FW: Phoenix Labs - GBZ05324, - Report Ready

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

From: Lynn E. Willey [mailto:LEWilley@tighebond.com]
Sent: Friday, September 29, 2017 10:08 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ05324, - Report Ready

Yes please proceed with the SPLP extraction.

If I do the extraction, will I have time (within the holding time) to look at mass results?

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: Client Services [mailto:clientservices@phoenixlabs.com]
Sent: Thursday, September 28, 2017 10:36 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: RE: Phoenix Labs - GBZ05324, - Report Ready

We can do the extraction only and hold for the results. Only way to get it faster is to rush the analysis.

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

From: Lynn E. Willey [mailto:LEWilley@tighebond.com]
Sent: Thursday, September 28, 2017 10:35 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ05324, - Report Ready

Sarah:

I need to have SB-14 (23-24') activated for VOC, SVOC, ETPH, Total RSR metals and TCN.

I may have to have SPLP analysis for PAHs completed once I have results. Is there any way to get draft results before the holding time is past? Could I have the extraction completed for a cost and hold analysis?

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Wednesday, September 27, 2017 9:43 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ05324, - Report Ready

Delivery group GBZ05324 for the following samples:

BZ05324 - SB-14 (18-19 FT)
BZ05326 - SB-16 (22-24 FT)
BZ05327 - SB-16 (30-32 FT)

is available for review. Please click the following link to view report data.

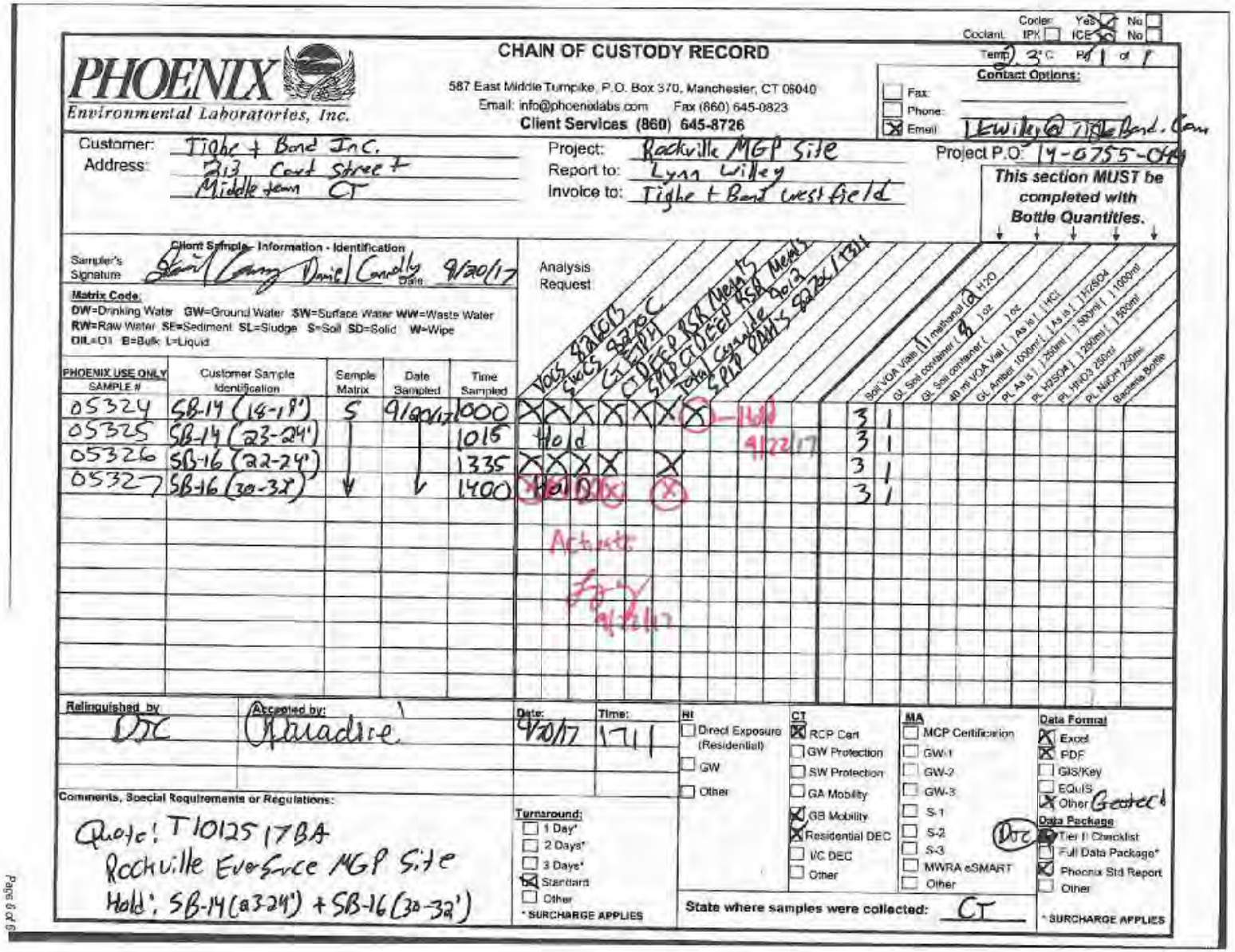
www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not re ply to this email.
cc'd:lewilley@tighebond.com



PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp: 2.3°C Pg 1 of 1

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwiley@TigheBond.com

Customer: Tighe + Bond Inc.
Address: 213 Court Street + Middletown CT

Project: Rockville MGP Site
Report to: Lynn Wiley
Invoice to: Tighe + Bond Westfield

Project P.O.: 14-0755-004

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Client Sample - Information - Identification — Date: 9/20/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
05324	SB-14 (14-18')	S	9/20/17	1000
05325	SB-14 (23-24')			1015
05326	SB-16 (22-24')			1335
05327	SB-16 (30-32')			1400

Volatiles 8260 Target List
SVOCs 8270C
CT EPH
CT DEEP RSR Metals
SPLP Cyanide 9012
SPLP Metals 6020/7470
Hold
Hold
Hold
Hold
Activate
9/22/17

Soil VOA Vials (1) methanol (3) H2O: 3 3 3 3
GL Soil container (4) 1 oz: 1 1 1 1
GL Soil container (4) 4 oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by: DJC
Accepted by: Rdiadise
Date: 9/20/17
Time: 1711

Comments, Special Requirements or Regulations:
Quote: T10125 17BA
Rockville Eversource MGP Site
Hold: SB-14 (@ 24') + SB-16 (30-32')

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

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

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[X] 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
DOC

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[X] Other Geotech
Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[X] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

State where samples were collected: CT

Page 6 of 6

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, September 28, 2017 10:35 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ05324, - Report Ready
Attachments: SKMBT_C65417092810310.pdf

Sarah:

I need to have SB-14 (23-24') activated for VOC, SVOC, ETPH, Total RSR metals and TCN.

I may have to have SPLP analysis for PAHs completed once I have results. Is there any way to get draft results before the holding time is past? Could I have the extraction completed for a cost and hold analysis?

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
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From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Wednesday, September 27, 2017 9:43 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ05324, - Report Ready

Delivery group GBZ05324 for the following samples:

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BZ05326 - SB-16 (22-24 FT)
BZ05327 - SB-16 (30-32 FT)

is available for review. Please click the following link to view report data.

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www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102

Fax. (860) 645-0823
www.phoenixlabs.com

Please do not re ply to this email.
cc'd:lewilley@tighebond.com

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, October 04, 2017 11:45 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ05324, - Report Ready

Sarah:

Please completed SPLP PAHs for BZ05325 - SB-14 (23-24 FT).

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Wednesday, October 04, 2017 11:35 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ05324, - Report Ready

Delivery group GBZ05324 for the following samples:

BZ05324 - SB-14 (18-19 FT)
BZ05325 - SB-14 (23-24 FT)
BZ05326 - SB-16 (22-24 FT)
BZ05327 - SB-16 (30-32 FT)

is available for review. Please click the following link to view report data.

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www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

< font size="1">Please do not reply to this email.
cc'd:lewilley@tighebond.com

PHOENIX
Environmental Laboratories, Inc.

Thursday, September 28, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ06775

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

September 28, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/21/17	15:50
Location Code:	TIGHE-DAS	Received by:	B	09/21/17	18:41
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ06775
Phoenix ID: BZ06775

Project ID:
Client ID: MW-19S (14`-15`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Arsenic	0.83	0.65	mg/Kg	1	09/25/17	MA	SW6010C
Barium	28.3	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Beryllium	< 0.26	0.26	mg/Kg	1	09/25/17	MA	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Chromium	6.59	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Copper	3.88	0.32	mg/kg	1	09/25/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/27/17	RS	SW7471B
Nickel	3.63	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Lead	1.83	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	09/25/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	09/25/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	09/25/17	MA	SW6010C
Vanadium	14.3	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Zinc	8.88	0.32	mg/Kg	1	09/25/17	MA	SW6010C
Percent Solid	92		%		09/21/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.49	0.49	mg/Kg	1	09/26/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/21/17	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				09/22/17	AA/VCK	SW3545A
Mercury Digestion	Completed				09/26/17	W/W	SW7471B
Total Metals Digest	Completed				09/21/17	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	09/25/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/25/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	91		%	1	09/25/17	JRB	50 - 150 %

Ver 1

Project ID:
Phoenix I.D.: BZ06775
Client ID: MW-19S (14`-15`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	09/22/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	09/22/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	09/22/17	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	09/22/17	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C

Ver 1

Project ID:
Phoenix I.D.: BZ06775
Client ID: MW-19S (14`-15`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	09/22/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	09/22/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	09/22/17	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	09/22/17	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	09/22/17	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	09/22/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	09/22/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	09/22/17	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	09/22/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	09/22/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/22/17	DD	SW8270D

Ver 1

Project ID: Phoenix I.D.: BZ06775

Client ID: MW-19S (14`-15`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	09/22/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/22/17	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Benzoic acid	ND	710	ug/Kg	1	09/22/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Di-n-butylphthalate	ND	710	ug/Kg	1	09/22/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/22/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/22/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/22/17	DD	SW8270D

Project ID: Phoenix I.D.: BZ06775

Client ID: MW-19S (14`-15`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	09/22/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	09/22/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	59		%	1	09/22/17	DD	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	09/22/17	DD	30 - 130 %
% 2-Fluorophenol	58		%	1	09/22/17	DD	30 - 130 %
% Nitrobenzene-d5	60		%	1	09/22/17	DD	30 - 130 %
% Phenol-d5	65		%	1	09/22/17	DD	30 - 130 %
% Terphenyl-d14	70		%	1	09/22/17	DD	30 - 130 %
Field Extraction	Completed				09/21/17		SW5035A

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

Comments:

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

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

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

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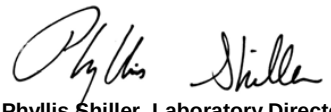

Phyllis Shiller, Laboratory Director
September 28, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

September 28, 2017

QA/QC Data

SDG I.D.: GBZ06775

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 402429 (mg/kg), QC Sample No: BZ06066 (BZ06775)														
ICP Metals - Soil														
Antimony	BRL	3.2	<1.7	<3.9	NC	113			97.7			75 - 125	30	
Arsenic	BRL	0.65	2.78	3.01	NC	97.8			93.0			75 - 125	30	
Barium	BRL	0.32	52.3	31.6	49.3	98.1			94.4			75 - 125	30	r
Beryllium	BRL	0.26	0.44	0.42	NC	105			95.6			75 - 125	30	
Cadmium	BRL	0.32	<0.35	<0.39	NC	105			96.3			75 - 125	30	
Chromium	BRL	0.32	24.0	17.7	30.2	108			91.6			75 - 125	30	
Copper	BRL	0.32	13.8	15.5	11.6	109			106			75 - 125	30	
Lead	BRL	0.32	23.9	21.7	9.60	100			97.1			75 - 125	30	
Nickel	BRL	0.32	26.8	29.6	9.90	109			101			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.6	NC	101			85.1			75 - 125	30	
Silver	BRL	0.32	<0.35	<0.39	NC	102			97.2			75 - 125	30	
Thallium	BRL	2.9	<1.4	<3.5	NC	103			97.2			75 - 125	30	
Vanadium	BRL	0.32	20.4	18.6	9.20	110			95.6			75 - 125	30	
Zinc	BRL	0.32	39.9	40.2	0.70	105			98.7			75 - 125	30	
QA/QC Batch 402939 (mg/kg), QC Sample No: BZ06775 (BZ06775)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	105	101	3.9	101			70 - 130	30	

Comment:

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

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

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QA/QC Report

September 28, 2017

QA/QC Data

SDG I.D.: GBZ06775

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 402712 (mg/Kg), QC Sample No: BZ05327 50X (BZ06775)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.51	NC	105			105			80 - 120	30

Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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QA/QC Report

September 28, 2017

QA/QC Data

SDG I.D.: GBZ06775

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402575 (ug/kg), QC Sample No: BZ05669 (BZ06775)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	120	117	2.5	110	109	0.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	111	109	1.8	109	103	5.7	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	116	110	5.3	116	116	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	116	110	5.3	106	100	5.8	70 - 130	30	
1,1-Dichloroethane	ND	5.0	112	107	4.6	107	104	2.8	70 - 130	30	
1,1-Dichloroethene	ND	5.0	103	99	4.0	99	95	4.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	114	110	3.6	105	104	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	120	108	10.5	90	92	2.2	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	114	105	8.2	110	108	1.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	109	96	12.7	80	82	2.5	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	111	101	9.4	91	87	4.5	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	120	129	7.2	118	113	4.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	115	110	4.4	104	104	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	109	101	7.6	94	91	3.2	70 - 130	30	
1,2-Dichloroethane	ND	5.0	115	110	4.4	103	105	1.9	70 - 130	30	
1,2-Dichloropropane	ND	5.0	115	111	3.5	105	103	1.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	111	102	8.5	98	99	1.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	109	99	9.6	94	97	3.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	111	105	5.6	102	102	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	107	98	8.8	92	95	3.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	121	117	3.4	104	101	2.9	70 - 130	30	
2-Chlorotoluene	ND	5.0	108	99	8.7	98	100	2.0	70 - 130	30	
2-Hexanone	ND	25	107	105	1.9	56	48	15.4	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	105	96	9.0	100	101	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	108	100	7.7	95	96	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	111	112	0.9	79	66	17.9	70 - 130	30	m
Acetone	ND	10	88	80	9.5	84	79	6.1	70 - 130	30	
Acrylonitrile	ND	5.0	102	100	2.0	90	79	13.0	70 - 130	30	
Benzene	ND	1.0	111	108	2.7	106	104	1.9	70 - 130	30	
Bromobenzene	ND	5.0	111	105	5.6	102	101	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	115	109	5.4	104	100	3.9	70 - 130	30	
Bromodichloromethane	ND	5.0	119	115	3.4	103	106	2.9	70 - 130	30	
Bromoform	ND	5.0	114	115	0.9	99	99	0.0	70 - 130	30	
Bromomethane	ND	5.0	98	97	1.0	88	81	8.3	70 - 130	30	
Carbon Disulfide	ND	5.0	104	100	3.9	90	87	3.4	70 - 130	30	
Carbon tetrachloride	ND	5.0	116	113	2.6	108	105	2.8	70 - 130	30	
Chlorobenzene	ND	5.0	106	101	4.8	95	96	1.0	70 - 130	30	
Chloroethane	ND	5.0	91	86	5.6	85	83	2.4	70 - 130	30	
Chloroform	ND	5.0	111	102	8.5	104	94	10.1	70 - 130	30	
Chloromethane	ND	5.0	87	84	3.5	83	85	2.4	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	110	106	3.7	103	99	4.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ06775

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	127	118	7.3	103	101	2.0	70 - 130	30	
Dibromochloromethane	ND	3.0	125	124	0.8	108	110	1.8	70 - 130	30	
Dibromomethane	ND	5.0	118	113	4.3	104	103	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	102	98	4.0	90	86	4.5	70 - 130	30	
Ethylbenzene	ND	1.0	106	99	6.8	97	97	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	111	99	11.4	88	90	2.2	70 - 130	30	
Isopropylbenzene	ND	1.0	113	104	8.3	110	110	0.0	70 - 130	30	
m&p-Xylene	ND	2.0	106	101	4.8	90	90	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	109	107	1.9	84	65	25.5	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	103	98	5.0	96	90	6.5	70 - 130	30	
Methylene chloride	ND	5.0	91	85	6.8	85	79	7.3	70 - 130	30	
Naphthalene	ND	5.0	134	128	4.6	80	62	25.4	70 - 130	30	l,m
n-Butylbenzene	ND	1.0	110	100	9.5	96	99	3.1	70 - 130	30	
n-Propylbenzene	ND	1.0	106	98	7.8	100	101	1.0	70 - 130	30	
o-Xylene	ND	2.0	113	109	3.6	101	101	0.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	113	103	9.3	103	106	2.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	106	9.0	110	113	2.7	70 - 130	30	
Styrene	ND	5.0	110	105	4.7	91	89	2.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	113	104	8.3	109	110	0.9	70 - 130	30	
Tetrachloroethene	ND	5.0	113	107	5.5	105	102	2.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	101	98	3.0	97	89	8.6	70 - 130	30	
Toluene	ND	1.0	111	108	2.7	104	102	1.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	111	105	5.6	104	102	1.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	125	121	3.3	103	99	4.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	127	122	4.0	103	100	3.0	70 - 130	30	
Trichloroethene	ND	5.0	110	104	5.6	102	102	0.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	87	84	3.5	87	83	4.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	94	90	4.3	91	87	4.5	70 - 130	30	
Vinyl chloride	ND	5.0	92	87	5.6	88	82	7.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	103	100	3.0	103	102	1.0	70 - 130	30	
% Bromofluorobenzene	98	%	98	101	3.0	97	99	2.0	70 - 130	30	
% Dibromofluoromethane	93	%	103	99	4.0	103	97	6.0	70 - 130	30	
% Toluene-d8	99	%	102	103	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 402456 (ug/kg), QC Sample No: BZ06775 (BZ06775)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	60	56	6.9	68	74	8.5	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	58	54	7.1	65	72	10.2	30 - 130	30	
1,2-Dichlorobenzene	ND	180	50	46	8.3	58	62	6.7	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	69	66	4.4	67	74	9.9	30 - 130	30	
1,3-Dichlorobenzene	ND	230	48	44	8.7	51	54	5.7	30 - 130	30	
1,4-Dichlorobenzene	ND	230	50	45	10.5	54	58	7.1	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	69	63	9.1	70	74	5.6	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	71	65	8.8	66	73	10.1	30 - 130	30	
2,4-Dichlorophenol	ND	130	62	58	6.7	76	80	5.1	30 - 130	30	
2,4-Dimethylphenol	ND	230	67	65	3.0	66	71	7.3	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	26	46	55.6	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	72	68	5.7	69	73	5.6	30 - 130	30	
2,6-Dinitrotoluene	ND	130	73	67	8.6	65	68	4.5	30 - 130	30	
2-Chloronaphthalene	ND	230	65	60	8.0	67	74	9.9	30 - 130	30	
2-Chlorophenol	ND	230	56	52	7.4	63	72	13.3	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ06775

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylnaphthalene	ND	230	59	55	7.0	65	73	11.6	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	62	53	15.7	66	73	10.1	30 - 130	30	
2-Nitroaniline	ND	330	111	104	6.5	88	92	4.4	30 - 130	30	
2-Nitrophenol	ND	230	62	56	10.2	60	67	11.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	63	58	8.3	63	67	6.2	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82	79	3.7	66	80	19.2	30 - 130	30	
3-Nitroaniline	ND	330	83	74	11.5	76	78	2.6	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	11	11	0.0	46	62	29.6	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	67	62	7.8	65	74	12.9	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	70	67	4.4	75	75	0.0	30 - 130	30	
4-Chloroaniline	ND	230	65	61	6.3	64	62	3.2	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	68	64	6.1	63	68	7.6	30 - 130	30	
4-Nitroaniline	ND	230	72	66	8.7	65	67	3.0	30 - 130	30	
4-Nitrophenol	ND	230	68	62	9.2	51	65	24.1	30 - 130	30	
Acenaphthene	ND	230	70	66	5.9	71	79	10.7	30 - 130	30	
Acenaphthylene	ND	130	65	60	8.0	62	69	10.7	30 - 130	30	
Acetophenone	ND	230	56	52	7.4	61	70	13.7	30 - 130	30	
Aniline	ND	330	45	43	4.5	32	50	43.9	30 - 130	30	r
Anthracene	ND	230	72	66	8.7	68	77	12.4	30 - 130	30	
Benz(a)anthracene	ND	230	68	64	6.1	65	74	12.9	30 - 130	30	
Benzidine	ND	330	56	54	3.6	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	67	63	6.2	65	74	12.9	30 - 130	30	
Benzo(b)fluoranthene	ND	160	71	67	5.8	72	83	14.2	30 - 130	30	
Benzo(ghi)perylene	ND	230	64	60	6.5	61	71	15.2	30 - 130	30	
Benzo(k)fluoranthene	ND	230	71	67	5.8	77	89	14.5	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	30	34	12.5	30 - 130	30	l
Benzyl butyl phthalate	ND	230	70	67	4.4	75	85	12.5	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	61	58	5.0	75	81	7.7	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	48	44	8.7	62	82	27.8	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	45	40	11.8	63	72	13.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	71	67	5.8	74	86	15.0	30 - 130	30	
Carbazole	ND	230	71	68	4.3	70	78	10.8	30 - 130	30	
Chrysene	ND	230	69	66	4.4	69	77	11.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	69	64	7.5	64	75	15.8	30 - 130	30	
Dibenzofuran	ND	230	68	64	6.1	64	73	13.1	30 - 130	30	
Diethyl phthalate	ND	230	71	67	5.8	68	72	5.7	30 - 130	30	
Dimethylphthalate	ND	230	70	64	9.0	68	71	4.3	30 - 130	30	
Di-n-butylphthalate	ND	670	72	68	5.7	67	77	13.9	30 - 130	30	
Di-n-octylphthalate	ND	230	74	70	5.6	69	80	14.8	30 - 130	30	
Fluoranthene	ND	230	70	66	5.9	62	70	12.1	30 - 130	30	
Fluorene	ND	230	70	66	5.9	68	74	8.5	30 - 130	30	
Hexachlorobenzene	ND	130	71	71	0.0	63	72	13.3	30 - 130	30	
Hexachlorobutadiene	ND	230	57	54	5.4	63	66	4.7	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	46	41	11.5	33	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	48	45	6.5	48	51	6.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	68	64	6.1	62	72	14.9	30 - 130	30	
Isophorone	ND	130	58	54	7.1	69	75	8.3	30 - 130	30	
Naphthalene	ND	230	58	54	7.1	70	75	6.9	30 - 130	30	
Nitrobenzene	ND	130	58	53	9.0	63	72	13.3	30 - 130	30	
N-Nitrosodimethylamine	ND	230	44	42	4.7	33	39	16.7	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	59	54	8.8	66	76	14.1	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	70	66	5.9	66	70	5.9	30 - 130	30	
Pentachloronitrobenzene	ND	230	75	71	5.5	60	70	15.4	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ06775

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Pentachlorophenol	ND	230	40	34	16.2	63	74	16.1	30 - 130	30	
Phenanthrene	ND	130	68	65	4.5	66	74	11.4	30 - 130	30	
Phenol	ND	230	61	55	10.3	71	75	5.5	30 - 130	30	
Pyrene	ND	230	72	67	7.2	63	73	14.7	30 - 130	30	
Pyridine	ND	230	32	29	9.8	21	28	28.6	30 - 130	30	l,m
% 2,4,6-Tribromophenol	57	%	76	71	6.8	59	65	9.7	30 - 130	30	
% 2-Fluorobiphenyl	67	%	66	61	7.9	67	75	11.3	30 - 130	30	
% 2-Fluorophenol	53	%	52	48	8.0	58	66	12.9	30 - 130	30	
% Nitrobenzene-d5	54	%	56	52	7.4	62	72	14.9	30 - 130	30	
% Phenol-d5	60	%	57	53	7.3	65	68	4.5	30 - 130	30	
% Terphenyl-d14	58	%	67	65	3.0	62	70	12.1	30 - 130	30	

Comment:

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

QA/QC Batch 402587 (mg/Kg), QC Sample No: BZ07111 (BZ06775)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	84		92	86	6.7	60 - 120	30	
% n-Pentacosane	68	%	86		86	91	5.6	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.

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
September 28, 2017

Thursday, September 28, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ06775 - TIGHE-DAS

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 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:*** Tighe & Bond

Project Location: MW-19S (14`-15`) ***Project Number:***

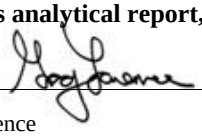
Laboratory Sample ID(s): BZ06775 ***Sampling Date(s):*** 9/21/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Thursday, September 28, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

PHOENIX

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

September 28, 2017

SDG I.D.: GBZ06775

Cyanide Narration

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

Instrument:

LACHAT 09/26/17-1 Dustin Harrison, Chemist 09/26/17

BZ06775

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 402712 (BZ05327)

BZ06775

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

ETPH Narration

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

Instrument:

AU-FID11 09/25/17-1 Jeff Bucko, Chemist 09/25/17

BZ06775

The initial calibration (ETPH819I) 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 402587 (BZ07111)

BZ06775

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

Mercury Narration

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

Instrument:

MERLIN 09/27/17 07:41 Rick Schweitzer, Chemist 09/27/17

BZ06775

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September 28, 2017

SDG I.D.: GBZ06775

Mercury Narration

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

QC (Site Specific):

Batch 402939 (BZ06775)

BZ06775

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

ICP Metals Narration

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

QC Batch 402429 (Samples: BZ06775): -----

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

Instrument:

ARCOS 09/25/17 06:19 Mike Arsenault, Chemist 09/25/17

BZ06775

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 402429 (BZ06066)

BZ06775

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

SVOA Narration

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RCP Certification Report

September 28, 2017

SDG I.D.: GBZ06775

SVOA Narration

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

QC Batch 402456 (Samples: BZ06775): -----

The LCS/LCSD and the MS/MSD recovery is below the lower range but within the method criteria. A slight low bias is possible. (Pyridine)

The LCS/LCSD recovery is below the method criteria. The MS/MSD recovery is acceptable. A slight low bias for these analytes is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Benzoic Acid)

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Benzidine, Hexachlorocyclopentadiene)

The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (2,4-Dinitrophenol, Aniline)

Instrument:

CHEM19 09/22/17-1 Damien Drobinski, Chemist 09/22/17

BZ06775

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_0907):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0922_02-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: N-Nitrosodimethylamine 45%L (30%), Pyridine 47%L (30%)
The following compounds did not meet maximum % deviations: N-Nitrosodimethylamine 45%L (40%), Pyridine 47%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.060 (0.1), Hexachlorobenzene 0.078 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Site Specific):

Batch 402456 (BZ06775)

BZ06775

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(11%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(11%), Benzoic Acid(<10%), Pyridine(29%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(26%), Benzidine(<10%), Pyridine(21%)
All MSD recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%), Hexachlorocyclopentadiene(<10%),

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RCP Certification Report

September 28, 2017

SDG I.D.: GBZ06775

SVOA Narration

Pyridine(28%)
All MS/MSD RPDs were less than 30% with the following exceptions: 2,4-Dinitrophenol(55.6%), Aniline(43.9%)
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 09/21/17-2 Jane Li, Chemist 09/21/17

BZ06775

Initial Calibration Verification (CHEM14/VT-0920):
93% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Bromoform 24% (20%), Methylene chloride 21% (20%), Naphthalene 28% (20%), trans-1,3-Dichloropropene 25% (20%), trans-1,4-dichloro-2-butene 39% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0921_31-VT-0920):
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 402575 (BZ05669)

BZ06775

All LCS recoveries were within 70 - 130 with the following exceptions: Naphthalene(134%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.1C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp 0.1 °C Pg 1 of 1

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwilley@TigheBond.com

Customer: Tighe + Bond Inc.
Address: 213 Court Street Middletown CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond Westfield

Project P.O: 14-0755-004

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Daniel Conolly Date: 9/21/17

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: VOCs SW8260B; SVOCs 8270C; CT ETPH; CT DEP RSR Metals; STARS CT DEP PCBs Aroclors; Total Cyanide; SHLP Parts 5 & 7 (4 TH)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soil VOA Vials [8] methanol [8] 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
00775	~~SB~~ MW-115(14-15')	S	9/21/17	1550	X	X	X	X	X					
00776	MW-115(30-32')	↓	↓	1620	HOLD									

						3	1							
						3	1							

Relinquished by:	Accepted by:	Date:	Time:
DX	TROUMM	9/21/17	1841

Comments, Special Requirements or Regulations:
Quote: T10125178A
Rockville Eversource MGP Site
Hold: MW-115(30-32')

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 Geotech

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

PHOENIX
Environmental Laboratories, Inc.

Wednesday, October 11, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP SITE
Sample ID#s: BZ07946 - BZ07948

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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Environmental Laboratories, Inc.
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Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/22/17	10:25
Location Code:	TIGHE	Received by:	SW	09/25/17	14:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ07946
Phoenix ID: BZ07946

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (25-26 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Arsenic	0.82	0.65	mg/Kg	1	09/26/17	MA	SW6010C
Barium	29.3	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Beryllium	< 0.26	0.26	mg/Kg	1	09/26/17	MA	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Chromium	8.76	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Copper	8.12	0.33	mg/kg	1	09/26/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/27/17	RS	SW7471B
Nickel	6.48	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Lead	1.02	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	09/26/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	09/26/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	09/26/17	MA	SW6010C
Vanadium	15.5	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Zinc	15.8	0.33	mg/Kg	1	09/26/17	MA	SW6010C
Percent Solid	97		%		09/25/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.47	0.47	mg/Kg	1	09/27/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/26/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/26/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				09/27/17	W/W	SW7471B
Total Metals Digest	Completed				09/25/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	09/27/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/27/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	1	09/27/17	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (25-26 FT)

Phoenix I.D.: BZ07946

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	09/27/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
2-Chlorotoluene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	09/27/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
4-Chlorotoluene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	09/27/17	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	09/27/17	JLI	SW8260C
Acrylonitrile	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Benzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Bromobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Bromoform	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Bromomethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Chloroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Chloroform	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Chloromethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	09/27/17	JLI	SW8260C
Dibromomethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (25-26 FT)

Phoenix I.D.: BZ07946

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	09/27/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	09/27/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	09/27/17	JLI	SW8260C
Naphthalene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
o-Xylene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Styrene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	09/27/17	JLI	SW8260C
Toluene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Total Xylenes	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	09/27/17	JLI	SW8260C
Trichloroethene	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/Kg	1	09/27/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	09/27/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	09/27/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	09/27/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	09/27/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	09/26/17	DD	SW8270D

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (25-26 FT)

Phoenix I.D.: BZ07946

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	09/26/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Aniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzoic acid	ND	680	ug/Kg	1	09/26/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Carbazole	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Di-n-butylphthalate	ND	680	ug/Kg	1	09/26/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (25-26 FT)

Phoenix I.D.: BZ07946

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Pyridine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	60		%	1	09/26/17	DD	30 - 130 %
% 2-Fluorobiphenyl	58		%	1	09/26/17	DD	30 - 130 %
% 2-Fluorophenol	51		%	1	09/26/17	DD	30 - 130 %
% Nitrobenzene-d5	51		%	1	09/26/17	DD	30 - 130 %
% Phenol-d5	53		%	1	09/26/17	DD	30 - 130 %
% Terphenyl-d14	71		%	1	09/26/17	DD	30 - 130 %
Field Extraction	Completed				09/22/17		SW5035A

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

Comments:

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

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

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

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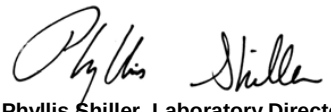

Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/22/17	11:15
Location Code:	TIGHE	Received by:	SW	09/25/17	14:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ07946
Phoenix ID: BZ07947

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (35-37 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		10/05/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/05/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/05/17	JJ/VCK	SW3545A
SPLP Extraction for Organics	Completed				10/05/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				10/06/17	P/I	SW3510C/SW3520C
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	21000	2300	mg/Kg	20	10/09/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	20	10/09/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	20	10/09/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	580	ug/Kg	500	10/06/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	580	ug/Kg	500	10/06/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
1,1-Dichloroethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,1-Dichloroethene	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
1,1-Dichloropropene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2,4-Trimethylbenzene	50000	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	580	ug/Kg	500	10/06/17	JLI	SW8260C
1,2-Dibromoethane	ND	290	ug/Kg	500	10/06/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,2-Dichloroethane	ND	290	ug/Kg	500	10/06/17	JLI	SW8260C

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (35-37 FT)

Phoenix I.D.: BZ07947

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloropropane	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
1,3,5-Trimethylbenzene	15000	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,3-Dichloropropane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
2,2-Dichloropropane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
2-Chlorotoluene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
2-Hexanone	ND	7000	ug/Kg	500	10/06/17	JLI	SW8260C
2-Isopropyltoluene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
4-Chlorotoluene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	14000	ug/Kg	500	10/06/17	JLI	SW8260C
Acetone	ND	140000	ug/Kg	500	10/06/17	JLI	SW8260C
Acrylonitrile	ND	290	ug/Kg	500	10/06/17	JLI	SW8260C
Benzene	ND	290	ug/Kg	500	10/06/17	JLI	SW8260C
Bromobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Bromochloromethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Bromodichloromethane	ND	580	ug/Kg	500	10/06/17	JLI	SW8260C
Bromoform	ND	800	ug/Kg	500	10/06/17	JLI	SW8260C
Bromomethane	ND	1200	ug/Kg	500	10/06/17	JLI	SW8260C
Carbon Disulfide	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Carbon tetrachloride	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
Chlorobenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Chloroethane	ND	1500	ug/Kg	500	10/06/17	JLI	SW8260C
Chloroform	ND	1200	ug/Kg	500	10/06/17	JLI	SW8260C
Chloromethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Dibromochloromethane	ND	580	ug/Kg	500	10/06/17	JLI	SW8260C
Dibromomethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Dichlorodifluoromethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Ethylbenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Hexachlorobutadiene	ND	1500	ug/Kg	500	10/06/17	JLI	SW8260C
Isopropylbenzene	7700	2900	ug/Kg	500	10/06/17	JLI	SW8260C
m&p-Xylene	4400	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	17000	ug/Kg	500	10/06/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	5800	ug/Kg	500	10/06/17	JLI	SW8260C
Methylene chloride	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Naphthalene	670000	58000	ug/Kg	10000	10/06/17	JLI	SW8260C
n-Butylbenzene	3800	2900	ug/Kg	500	10/06/17	JLI	SW8260C
n-Propylbenzene	3300	2900	ug/Kg	500	10/06/17	JLI	SW8260C
o-Xylene	6500	2900	ug/Kg	500	10/06/17	JLI	SW8260C
p-Isopropyltoluene	3300	2900	ug/Kg	500	10/06/17	JLI	SW8260C
sec-Butylbenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Styrene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
tert-Butylbenzene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Tetrachloroethene	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	1400	ug/Kg	500	10/06/17	JLI	SW8260C
Toluene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Total Xylenes	10900	2900	ug/Kg	500	10/06/17	JLI	SW8260C

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (35-37 FT)

Phoenix I.D.: BZ07947

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,2-Dichloroethene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	5800	ug/Kg	500	10/06/17	JLI	SW8260C
Trichloroethene	ND	1000	ug/Kg	500	10/06/17	JLI	SW8260C
Trichlorofluoromethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	2900	ug/Kg	500	10/06/17	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	500	10/06/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	500	10/06/17	JLI	70 - 130 %
% Bromofluorobenzene	113		%	500	10/06/17	JLI	70 - 130 %
% Dibromofluoromethane	88		%	500	10/06/17	JLI	70 - 130 %
% Toluene-d8	97		%	500	10/06/17	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	740000	110000	ug/Kg	200	10/06/17	G	SW8270D
Acenaphthene	370000	110000	ug/Kg	200	10/06/17	G	SW8270D
Acenaphthylene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Anthracene	210000	110000	ug/Kg	200	10/06/17	G	SW8270D
Benz(a)anthracene	110000	110000	ug/Kg	200	10/06/17	G	SW8270D
Benzo(a)pyrene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Benzo(b)fluoranthene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Benzo(ghi)perylene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Benzo(k)fluoranthene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Chrysene	120000	110000	ug/Kg	200	10/06/17	G	SW8270D
Dibenz(a,h)anthracene	ND	49000	ug/Kg	200	10/06/17	G	SW8270D
Fluoranthene	240000	110000	ug/Kg	200	10/06/17	G	SW8270D
Fluorene	310000	110000	ug/Kg	200	10/06/17	G	SW8270D
Indeno(1,2,3-cd)pyrene	ND	110000	ug/Kg	200	10/06/17	G	SW8270D
Naphthalene	910000	110000	ug/Kg	200	10/06/17	G	SW8270D
Phenanthrene	750000	110000	ug/Kg	200	10/06/17	G	SW8270D
Pyrene	360000	110000	ug/Kg	200	10/06/17	G	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	200	10/06/17	G	30 - 130 %
% Nitrobenzene-d5	90		%	200	10/06/17	G	30 - 130 %
% Terphenyl-d14	71		%	200	10/06/17	G	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	390	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Acenaphthene	150	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Acenaphthylene	ND	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Anthracene	ND	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Benz(a)anthracene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Benzo(a)pyrene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Benzo(ghi)perylene	ND	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Chrysene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.20	ug/L	20	10/09/17	G	SW8270D (SIM)
Fluoranthene	ND	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Fluorene	73	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: MW-20S (35-37 FT)

Phoenix I.D.: BZ07947

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	ND	0.40	ug/L	20	10/09/17	G	SW8270D (SIM)
Naphthalene	1500	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
Phenanthrene	87	1.4	ug/L	20	10/09/17	G	SW8270D (SIM)
Pyrene	ND	2.0	ug/L	20	10/09/17	G	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	53		%	20	10/09/17	G	30 - 130 %
% Nitrobenzene-d5	46		%	20	10/09/17	G	30 - 130 %
% Terphenyl-d14	57		%	20	10/09/17	G	30 - 130 %
Field Extraction	Completed				09/22/17		SW5035A

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

Comments:

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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:
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.

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.
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Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	09/22/17	14:40
Location Code:	TIGHE	Received by:	SW	09/25/17	14:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ07946
Phoenix ID: BZ07948

Project ID: ROCKVILLE MGP SITE
Client ID: SB-15 (24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Arsenic	0.90	0.70	mg/Kg	1	09/26/17	MA	SW6010C
Barium	31.0	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Beryllium	< 0.28	0.28	mg/Kg	1	09/26/17	MA	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Chromium	10.2	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Copper	9.67	0.35	mg/kg	1	09/26/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/27/17	RS	SW7471B
Nickel	7.05	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Lead	2.23	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	09/26/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	09/26/17	MA	SW6010C
Thallium	< 3.1	3.1	mg/Kg	1	09/26/17	MA	SW6010C
Vanadium	19.8	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Zinc	17.3	0.35	mg/Kg	1	09/26/17	MA	SW6010C
Percent Solid	97		%		09/25/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.47	0.47	mg/Kg	1	09/27/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/26/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/26/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				09/27/17	W/W	SW7471B
Total Metals Digest	Completed				09/25/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	09/27/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/27/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	09/27/17	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: SB-15 (24 FT)

Phoenix I.D.: BZ07948

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.5	ug/Kg	1	09/28/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
2-Chlorotoluene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
2-Hexanone	ND	21	ug/Kg	1	09/28/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
4-Chlorotoluene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	21	ug/Kg	1	09/28/17	JLI	SW8260C
Acetone	ND	210	ug/Kg	1	09/28/17	JLI	SW8260C
Acrylonitrile	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Benzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Bromobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Bromochloromethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Bromodichloromethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Bromoform	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Bromomethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Carbon Disulfide	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Carbon tetrachloride	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Chlorobenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Chloroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Chloroform	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Chloromethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Dibromochloromethane	ND	2.5	ug/Kg	1	09/28/17	JLI	SW8260C
Dibromomethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Ethylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Isopropylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: SB-15 (24 FT)

Phoenix I.D.: BZ07948

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	25	ug/Kg	1	09/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.5	ug/Kg	1	09/28/17	JLI	SW8260C
Methylene chloride	ND	8.5	ug/Kg	1	09/28/17	JLI	SW8260C
Naphthalene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
n-Butylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
n-Propylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
o-Xylene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
sec-Butylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Styrene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
tert-Butylbenzene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Tetrachloroethene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.5	ug/Kg	1	09/28/17	JLI	SW8260C
Toluene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Total Xylenes	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.5	ug/Kg	1	09/28/17	JLI	SW8260C
Trichloroethene	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
Vinyl chloride	ND	4.2	ug/Kg	1	09/28/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	09/28/17	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1	09/28/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	09/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	09/28/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	09/26/17	DD	SW8270D

Ver 3

Project ID: ROCKVILLE MGP SITE
Client ID: SB-15 (24 FT)

Phoenix I.D.: BZ07948

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	09/26/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Aniline	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	09/26/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Carbazole	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Di-n-butylphthalate	ND	690	ug/Kg	1	09/26/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/26/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	09/26/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-15 (24 FT)

Phoenix I.D.: BZ07948

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/26/17	DD	SW8270D
Pyridine	ND	340	ug/Kg	1	09/26/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	59		%	1	09/26/17	DD	30 - 130 %
% 2-Fluorobiphenyl	59		%	1	09/26/17	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	09/26/17	DD	30 - 130 %
% Nitrobenzene-d5	48		%	1	09/26/17	DD	30 - 130 %
% Phenol-d5	48		%	1	09/26/17	DD	30 - 130 %
% Terphenyl-d14	72		%	1	09/26/17	DD	30 - 130 %
Field Extraction	Completed				09/22/17		SW5035A

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

Comments:

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

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

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

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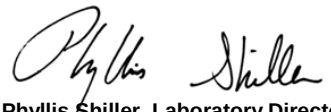

Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ07946

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 402827 (mg/kg), QC Sample No: BZ07946 (BZ07946, BZ07948)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.3	<3.5	NC	98.9			94.4			75 - 125	30
Arsenic	BRL	0.66	0.82	<0.70	NC	101			91.2			75 - 125	30
Barium	BRL	0.33	29.3	27.5	6.30	106			95.1			75 - 125	30
Beryllium	BRL	0.26	<0.26	<0.28	NC	106			94.2			75 - 125	30
Cadmium	BRL	0.33	<0.33	<0.35	NC	106			95.3			75 - 125	30
Chromium	BRL	0.33	8.76	7.44	16.3	109			93.5			75 - 125	30
Copper	BRL	0.33	8.12	7.22	11.7	113			103			75 - 125	30
Lead	BRL	0.33	1.02	0.94	NC	101			96.1			75 - 125	30
Nickel	BRL	0.33	6.48	5.31	19.8	107			94.0			75 - 125	30
Selenium	BRL	1.3	<1.3	<1.4	NC	110			85.4			75 - 125	30
Silver	BRL	0.33	<0.33	<0.35	NC	106			94.7			75 - 125	30
Thallium	BRL	3.0	<2.9	<3.1	NC	103			96.4			75 - 125	30
Vanadium	BRL	0.33	15.5	13.3	15.3	111			92.5			75 - 125	30
Zinc	BRL	0.33	15.8	13.5	15.7	109			94.6			75 - 125	30
QA/QC Batch 403170 (mg/kg), QC Sample No: BZ09195 (BZ07946, BZ07948)													
Mercury - Soil	BRL	0.03	0.09	0.13	NC	101	116	13.8	115			70 - 130	30

Comment:

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

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QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ07946

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 403020 (mg/Kg), QC Sample No: BZ07946 50X (BZ07946, BZ07948)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.47	<0.52	NC	92.0			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402990 (mg/Kg), QC Sample No: BZ07946 (BZ07946, BZ07948)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	84	95	12.3	103	92	11.3	60 - 120	30	
% n-Pentacosane	77	%	71	78	9.4	79	68	15.0	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 403557 (ug/kg), QC Sample No: BZ08530 (BZ07948)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	117	121	3.4	119	99	18.3	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	120	122	1.7	134	107	22.4	70 - 130	30	m
1,1,2,2-Tetrachloroethane	ND	3.0	119	120	0.8	123	102	18.7	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	116	120	3.4	122	101	18.8	70 - 130	30	
1,1-Dichloroethane	ND	5.0	116	120	3.4	130	107	19.4	70 - 130	30	
1,1-Dichloroethene	ND	5.0	116	121	4.2	124	101	20.4	70 - 130	30	
1,1-Dichloropropene	ND	5.0	121	127	4.8	135	107	23.1	70 - 130	30	m
1,2,3-Trichlorobenzene	ND	5.0	120	126	4.9	105	75	33.3	70 - 130	30	r
1,2,3-Trichloropropane	ND	5.0	114	113	0.9	118	97	19.5	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	122	130	6.3	105	77	30.8	70 - 130	30	r
1,2,4-Trimethylbenzene	ND	1.0	115	120	4.3	120	91	27.5	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	118	117	0.9	113	95	17.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	116	120	3.4	122	102	17.9	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	117	122	4.2	115	91	23.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	116	120	3.4	129	106	19.6	70 - 130	30	
1,2-Dichloropropane	ND	5.0	115	120	4.3	126	103	20.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	118	123	4.1	126	94	29.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	120	125	4.1	119	92	25.6	70 - 130	30	
1,3-Dichloropropane	ND	5.0	115	116	0.9	122	101	18.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	117	123	5.0	115	90	24.4	70 - 130	30	
2,2-Dichloropropane	ND	5.0	128	134	4.6	138	108	24.4	70 - 130	30	l,m
2-Chlorotoluene	ND	5.0	119	122	2.5	126	97	26.0	70 - 130	30	
2-Hexanone	ND	25	92	88	4.4	81	65	21.9	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	102	103	1.0	104	75	32.4	70 - 130	30	r
4-Chlorotoluene	ND	5.0	119	124	4.1	122	96	23.9	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	95	3.1	95	79	18.4	70 - 130	30	
Acetone	ND	10	80	75	6.5	72	59	19.8	70 - 130	30	m
Acrylonitrile	ND	5.0	97	97	0.0	92	77	17.8	70 - 130	30	
Benzene	ND	1.0	115	120	4.3	127	104	19.9	70 - 130	30	
Bromobenzene	ND	5.0	118	121	2.5	124	100	21.4	70 - 130	30	
Bromochloromethane	ND	5.0	116	118	1.7	123	103	17.7	70 - 130	30	
Bromodichloromethane	ND	5.0	117	121	3.4	124	104	17.5	70 - 130	30	
Bromoform	ND	5.0	116	119	2.6	106	91	15.2	70 - 130	30	
Bromomethane	ND	5.0	92	92	0.0	87	72	18.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	5.0	102	103	1.0	103	82	22.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	120	125	4.1	128	103	21.6	70 - 130	30	
Chlorobenzene	ND	5.0	115	119	3.4	122	99	20.8	70 - 130	30	
Chloroethane	ND	5.0	97	95	2.1	94	77	19.9	70 - 130	30	
Chloroform	ND	5.0	114	117	2.6	126	103	20.1	70 - 130	30	
Chloromethane	ND	5.0	88	86	2.3	90	74	19.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	117	120	2.5	128	106	18.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	121	125	3.3	125	103	19.3	70 - 130	30	
Dibromochloromethane	ND	3.0	120	125	4.1	119	100	17.4	70 - 130	30	
Dibromomethane	ND	5.0	116	118	1.7	123	103	17.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	92	95	3.2	96	74	25.9	70 - 130	30	
Ethylbenzene	ND	1.0	116	121	4.2	125	99	23.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	124	129	4.0	102	58	55.0	70 - 130	30	m,r
Isopropylbenzene	ND	1.0	121	125	3.3	131	100	26.8	70 - 130	30	m
m&p-Xylene	ND	2.0	117	122	4.2	124	97	24.4	70 - 130	30	
Methyl ethyl ketone	ND	5.0	90	86	4.5	88	73	18.6	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	106	105	0.9	108	91	17.1	70 - 130	30	
Methylene chloride	ND	5.0	88	89	1.1	94	76	21.2	70 - 130	30	
Naphthalene	ND	5.0	124	126	1.6	121	96	23.0	70 - 130	30	
n-Butylbenzene	ND	1.0	122	128	4.8	118	79	39.6	70 - 130	30	r
n-Propylbenzene	ND	1.0	120	125	4.1	128	95	29.6	70 - 130	30	
o-Xylene	ND	2.0	119	124	4.1	128	101	23.6	70 - 130	30	
p-Isopropyltoluene	ND	1.0	122	127	4.0	124	87	35.1	70 - 130	30	r
sec-Butylbenzene	ND	1.0	124	129	4.0	130	89	37.4	70 - 130	30	r
Styrene	ND	5.0	119	123	3.3	123	98	22.6	70 - 130	30	
tert-Butylbenzene	ND	1.0	121	125	3.3	130	94	32.1	70 - 130	30	r
Tetrachloroethene	ND	5.0	120	127	5.7	131	100	26.8	70 - 130	30	m
Tetrahydrofuran (THF)	ND	5.0	99	95	4.1	100	83	18.6	70 - 130	30	
Toluene	ND	1.0	116	120	3.4	127	102	21.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	116	119	2.6	124	101	20.4	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	118	123	4.1	119	99	18.3	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	104	102	1.9	89	75	17.1	70 - 130	30	
Trichloroethene	ND	5.0	119	123	3.3	131	105	22.0	70 - 130	30	m
Trichlorofluoromethane	ND	5.0	89	88	1.1	89	70	23.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	102	103	1.0	108	83	26.2	70 - 130	30	
Vinyl chloride	ND	5.0	90	90	0.0	92	75	20.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	99	100	1.0	100	99	1.0	70 - 130	30	
% Bromofluorobenzene	100	%	100	100	0.0	101	102	1.0	70 - 130	30	
% Dibromofluoromethane	99	%	100	99	1.0	101	99	2.0	70 - 130	30	
% Toluene-d8	100	%	99	100	1.0	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 403112 (ug/kg), QC Sample No: BZ08571 (BZ07946)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	110			100	98	2.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	108			110	109	0.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	111			112	106	5.5	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	106			101	98	3.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	107			110	107	2.8	70 - 130	30	
1,1-Dichloroethene	ND	5.0	109			110	107	2.8	70 - 130	30	
1,1-Dichloropropene	ND	5.0	110			112	111	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	108			59	52	12.6	70 - 130	30	m

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichloropropane	ND	5.0	112			113	101	11.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	104			63	56	11.8	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	103			92	89	3.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	112			97	91	6.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	107			105	99	5.9	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	106			89	85	4.6	70 - 130	30	
1,2-Dichloroethane	ND	5.0	106			107	102	4.8	70 - 130	30	
1,2-Dichloropropane	ND	5.0	106			106	103	2.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	107			104	100	3.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	105			94	90	4.3	70 - 130	30	
1,3-Dichloropropane	ND	5.0	106			105	100	4.9	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	104			90	87	3.4	70 - 130	30	
2,2-Dichloropropane	ND	5.0	112			112	115	2.6	70 - 130	30	
2-Chlorotoluene	ND	5.0	107			105	102	2.9	70 - 130	30	
2-Hexanone	ND	25	87			53	46	14.1	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	96			92	88	4.4	70 - 130	30	
4-Chlorotoluene	ND	5.0	106			101	98	3.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	93			73	66	10.1	70 - 130	30	m
Acetone	ND	10	72			64	61	4.8	70 - 130	30	m
Acrylonitrile	ND	5.0	93			83	75	10.1	70 - 130	30	
Benzene	ND	1.0	105			107	104	2.8	70 - 130	30	
Bromobenzene	ND	5.0	108			104	101	2.9	70 - 130	30	
Bromochloromethane	ND	5.0	105			105	103	1.9	70 - 130	30	
Bromodichloromethane	ND	5.0	108			103	101	2.0	70 - 130	30	
Bromoform	ND	5.0	110			89	87	2.3	70 - 130	30	
Bromomethane	ND	5.0	91			88	84	4.7	70 - 130	30	
Carbon Disulfide	ND	5.0	99			96	94	2.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	111			106	107	0.9	70 - 130	30	
Chlorobenzene	ND	5.0	105			99	96	3.1	70 - 130	30	
Chloroethane	ND	5.0	96			96	93	3.2	70 - 130	30	
Chloroform	ND	5.0	104			105	102	2.9	70 - 130	30	
Chloromethane	ND	5.0	87			89	85	4.6	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	106			107	104	2.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	110			101	99	2.0	70 - 130	30	
Dibromochloromethane	ND	3.0	113			102	99	3.0	70 - 130	30	
Dibromomethane	ND	5.0	105			103	99	4.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	95			99	96	3.1	70 - 130	30	
Ethylbenzene	ND	1.0	106			103	100	3.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	111			83	76	8.8	70 - 130	30	
Isopropylbenzene	ND	1.0	111			117	114	2.6	70 - 130	30	
m&p-Xylene	ND	2.0	104			100	97	3.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	88			72	68	5.7	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	94			91	87	4.5	70 - 130	30	
Methylene chloride	ND	5.0	82			82	78	5.0	70 - 130	30	
Naphthalene	ND	5.0	116			56	52	7.4	70 - 130	30	m
n-Butylbenzene	ND	1.0	106			97	91	6.4	70 - 130	30	
n-Propylbenzene	ND	1.0	107			112	106	5.5	70 - 130	30	
o-Xylene	ND	2.0	107			103	99	4.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	108			103	98	5.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	114			115	110	4.4	70 - 130	30	
Styrene	ND	5.0	106			95	91	4.3	70 - 130	30	
tert-Butylbenzene	ND	1.0	111			114	109	4.5	70 - 130	30	
Tetrachloroethene	ND	5.0	106			107	104	2.8	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrahydrofuran (THF)	ND	5.0	92			90	84	6.9	70 - 130	30	
Toluene	ND	1.0	105			102	101	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	106			105	104	1.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	109			95	93	2.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	99			78	78	0.0	70 - 130	30	
Trichloroethene	ND	5.0	106			108	106	1.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	87			88	86	2.3	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	95			98	96	2.1	70 - 130	30	
Vinyl chloride	ND	5.0	89			91	88	3.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	100			99	97	2.0	70 - 130	30	
% Bromofluorobenzene	99	%	100			98	97	1.0	70 - 130	30	
% Dibromofluoromethane	100	%	102			101	101	0.0	70 - 130	30	
% Toluene-d8	101	%	100			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 402985 (ug/kg), QC Sample No: BZ09034 (BZ07946, BZ07948)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	49	60	20.2	51	47	8.2	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	46	57	21.4	48	46	4.3	30 - 130	30	
1,2-Dichlorobenzene	ND	180	41	51	21.7	44	45	2.2	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	52	63	19.1	50	47	6.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	40	50	22.2	40	41	2.5	30 - 130	30	
1,4-Dichlorobenzene	ND	230	42	52	21.3	43	44	2.3	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	52	64	20.7	54	51	5.7	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	50	62	21.4	50	46	8.3	30 - 130	30	
2,4-Dichlorophenol	ND	130	51	63	21.1	51	49	4.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	53	67	23.3	41	45	9.3	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	33	28	16.4	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	58	69	17.3	53	50	5.8	30 - 130	30	
2,6-Dinitrotoluene	ND	130	57	67	16.1	52	49	5.9	30 - 130	30	
2-Chloronaphthalene	ND	230	53	65	20.3	52	48	8.0	30 - 130	30	
2-Chlorophenol	ND	230	46	57	21.4	47	48	2.1	30 - 130	30	
2-Methylnaphthalene	ND	230	48	59	20.6	50	50	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	50	61	19.8	50	52	3.9	30 - 130	30	
2-Nitroaniline	ND	330	71	84	16.8	58	63	8.3	30 - 130	30	
2-Nitrophenol	ND	230	42	52	21.3	42	40	4.9	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	50	63	23.0	51	50	2.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	55	71	25.4	15	20	28.6	30 - 130	30	m
3-Nitroaniline	ND	330	65	78	18.2	55	58	5.3	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	39	32	19.7	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	53	67	23.3	51	45	12.5	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	54	66	20.0	53	53	0.0	30 - 130	30	
4-Chloroaniline	ND	230	52	65	22.2	43	47	8.9	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	52	64	20.7	49	45	8.5	30 - 130	30	
4-Nitroaniline	ND	230	52	65	22.2	50	49	2.0	30 - 130	30	
4-Nitrophenol	ND	230	48	52	8.0	50	48	4.1	30 - 130	30	
Acenaphthene	ND	230	56	69	20.8	60	63	4.9	30 - 130	30	
Acenaphthylene	ND	130	51	63	21.1	56	50	11.3	30 - 130	30	
Acetophenone	ND	230	43	54	22.7	47	48	2.1	30 - 130	30	
Aniline	ND	330	46	57	21.4	33	38	14.1	30 - 130	30	
Anthracene	ND	230	57	73	24.6	75	81	7.7	30 - 130	30	
Benz(a)anthracene	ND	230	53	67	23.3	NC	NC	NC	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzidine	ND	330	38	44	14.6	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	49	63	25.0	NC	NC	NC	30 - 130	30	
Benzo(b)fluoranthene	ND	160	51	64	22.6	NC	NC	NC	30 - 130	30	
Benzo(ghi)perylene	ND	230	60	77	24.8	NC	NC	NC	30 - 130	30	
Benzo(k)fluoranthene	ND	230	54	68	23.0	NC	NC	NC	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	21	31	38.5	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	55	69	22.6	50	45	10.5	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	51	64	22.6	50	49	2.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	37	45	19.5	43	44	2.3	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	35	42	18.2	37	37	0.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	63	78	21.3	58	51	12.8	30 - 130	30	
Carbazole	ND	230	59	76	25.2	61	66	7.9	30 - 130	30	
Chrysene	ND	230	57	71	21.9	NC	NC	NC	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	61	76	21.9	37	39	5.3	30 - 130	30	
Dibenzofuran	ND	230	54	66	20.0	59	57	3.4	30 - 130	30	
Diethyl phthalate	ND	230	53	64	18.8	49	46	6.3	30 - 130	30	
Dimethylphthalate	ND	230	55	66	18.2	51	48	6.1	30 - 130	30	
Di-n-butylphthalate	ND	670	58	74	24.2	50	46	8.3	30 - 130	30	
Di-n-octylphthalate	ND	230	60	74	20.9	42	40	4.9	30 - 130	30	
Fluoranthene	ND	230	57	72	23.3	NC	NC	NC	30 - 130	30	
Fluorene	ND	230	55	67	19.7	57	62	8.4	30 - 130	30	
Hexachlorobenzene	ND	130	54	67	21.5	50	43	15.1	30 - 130	30	
Hexachlorobutadiene	ND	230	45	56	21.8	47	45	4.3	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	41	52	23.7	<10	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	40	51	24.2	39	39	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	55	70	24.0	49	55	11.5	30 - 130	30	
Isophorone	ND	130	46	55	17.8	46	44	4.4	30 - 130	30	
Naphthalene	ND	230	49	60	20.2	53	53	0.0	30 - 130	30	
Nitrobenzene	ND	130	43	53	20.8	46	46	0.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	40	50	22.2	42	42	0.0	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	45	55	20.0	48	47	2.1	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	56	68	19.4	53	49	7.8	30 - 130	30	
Pentachloronitrobenzene	ND	230	56	68	19.4	50	45	10.5	30 - 130	30	
Pentachlorophenol	ND	230	22	22	0.0	46	47	2.2	30 - 130	30	l
Phenanthrene	ND	130	55	69	22.6	NC	NC	NC	30 - 130	30	
Phenol	ND	230	48	59	20.6	50	50	0.0	30 - 130	30	
Pyrene	ND	230	58	73	22.9	NC	NC	NC	30 - 130	30	
Pyridine	ND	230	31	40	25.4	32	36	11.8	30 - 130	30	
% 2,4,6-Tribromophenol	54	%	49	62	23.4	51	46	10.3	30 - 130	30	
% 2-Fluorobiphenyl	54	%	50	63	23.0	50	46	8.3	30 - 130	30	
% 2-Fluorophenol	46	%	41	52	23.7	43	43	0.0	30 - 130	30	
% Nitrobenzene-d5	48	%	42	53	23.2	46	46	0.0	30 - 130	30	
% Phenol-d5	49	%	44	57	25.7	49	46	6.3	30 - 130	30	
% Terphenyl-d14	64	%	55	70	24.0	39	36	8.0	30 - 130	30	

Comment:

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

QA/QC Batch 404387 (ug/kg), QC Sample No: BZ15049 10X (BZ07947)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	67	77	74	4.0	73	70	4.2	30 - 130	30	
Acenaphthene	ND	67	83	81	2.4	78	74	5.3	30 - 130	30	
Acenaphthylene	ND	67	80	80	0.0	76	73	4.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Anthracene	ND	67	92	91	1.1	86	82	4.8	30 - 130	30
Benz(a)anthracene	ND	67	93	93	0.0	86	80	7.2	30 - 130	30
Benzo(a)pyrene	ND	67	96	95	1.0	88	82	7.1	30 - 130	30
Benzo(b)fluoranthene	ND	67	98	91	7.4	84	80	4.9	30 - 130	30
Benzo(ghi)perylene	ND	67	81	80	1.2	74	70	5.6	30 - 130	30
Benzo(k)fluoranthene	ND	67	88	89	1.1	84	80	4.9	30 - 130	30
Chrysene	ND	67	85	82	3.6	77	74	4.0	30 - 130	30
Dibenz(a,h)anthracene	ND	67	99	97	2.0	89	85	4.6	30 - 130	30
Fluoranthene	ND	67	92	94	2.2	85	81	4.8	30 - 130	30
Fluorene	ND	67	85	85	0.0	80	76	5.1	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	67	93	91	2.2	84	80	4.9	30 - 130	30
Naphthalene	ND	67	75	71	5.5	71	69	2.9	30 - 130	30
Phenanthrene	ND	67	84	81	3.6	78	74	5.3	30 - 130	30
Pyrene	ND	67	98	98	0.0	88	85	3.5	30 - 130	30
% 2-Fluorobiphenyl	80		80	78	2.5	74	72	2.7	30 - 130	30
% Nitrobenzene-d5	73		78	73	6.6	74	72	2.7	30 - 130	30
% Terphenyl-d14	99		99	99	0.0	87	86	1.2	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 404394 (mg/Kg), QC Sample No: BZ15319 (BZ07947)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	76	86	12.3	104	109	4.7	60 - 120	30
% n-Pentacosane	75	%	70	65	7.4	78	80	2.5	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 404579 (ug/kg), QC Sample No: BZ15545 (BZ07947 (10000X))

Volatiles - Soil

Naphthalene	ND	5.0	93	109	15.8				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 404803 (ug/kg), QC Sample No: BZ15810 (BZ07947 (500X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	96	99	3.1	95	97	2.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	86	93	7.8	89	94	5.5	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	97	101	4.0	89	89	0.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	95	100	5.1	93	94	1.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	84	91	8.0	89	92	3.3	70 - 130	30
1,1-Dichloroethene	ND	5.0	84	90	6.9	86	88	2.3	70 - 130	30
1,1-Dichloropropene	ND	5.0	88	92	4.4	97	99	2.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	94	97	3.1	90	91	1.1	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	87	94	7.7	82	83	1.2	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	90	92	2.2	89	89	0.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	87	90	3.4	91	93	2.2	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	106	113	6.4	81	81	0.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	93	99	6.3	88	92	4.4	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	91	94	3.2	92	93	1.1	70 - 130	30
1,2-Dichloroethane	ND	5.0	91	95	4.3	90	91	1.1	70 - 130	30
1,2-Dichloropropane	ND	5.0	89	93	4.4	93	95	2.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	87	90	3.4	93	93	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3-Dichlorobenzene	ND	5.0	90	92	2.2	96	95	1.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	90	95	5.4	85	91	6.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	89	92	3.3	92	93	1.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	90	95	5.4	87	94	7.7	70 - 130	30	
2-Chlorotoluene	ND	5.0	87	91	4.5	93	94	1.1	70 - 130	30	
2-Hexanone	ND	25	83	88	5.8	69	70	1.4	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	93	97	4.2	99	101	2.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	88	91	3.4	94	95	1.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	89	95	6.5	81	78	3.8	70 - 130	30	
Acetone	ND	10	77	86	11.0	58	60	3.4	70 - 130	30	m
Acrylonitrile	ND	5.0	91	104	13.3	86	88	2.3	70 - 130	30	
Benzene	ND	1.0	89	92	3.3	96	97	1.0	70 - 130	30	
Bromobenzene	ND	5.0	90	93	3.3	92	94	2.2	70 - 130	30	
Bromochloromethane	ND	5.0	90	98	8.5	88	91	3.4	70 - 130	30	
Bromodichloromethane	ND	5.0	94	98	4.2	89	89	0.0	70 - 130	30	
Bromoform	ND	5.0	101	105	3.9	78	83	6.2	70 - 130	30	
Bromomethane	ND	5.0	98	107	8.8	54	49	9.7	70 - 130	30	m
Carbon Disulfide	ND	5.0	97	104	7.0	72	75	4.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	89	96	7.6	88	91	3.4	70 - 130	30	
Chlorobenzene	ND	5.0	87	91	4.5	91	95	4.3	70 - 130	30	
Chloroethane	ND	5.0	90	95	5.4	18	17	5.7	70 - 130	30	m
Chloroform	ND	5.0	89	89	0.0	86	89	3.4	70 - 130	30	
Chloromethane	ND	5.0	79	86	8.5	86	90	4.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	87	95	8.8	92	96	4.3	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	98	102	4.0	93	95	2.1	70 - 130	30	
Dibromochloromethane	ND	3.0	102	108	5.7	90	93	3.3	70 - 130	30	
Dibromomethane	ND	5.0	96	99	3.1	90	90	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	103	109	5.7	98	103	5.0	70 - 130	30	
Ethylbenzene	ND	1.0	88	92	4.4	90	96	6.5	70 - 130	30	
Hexachlorobutadiene	ND	5.0	93	98	5.2	101	100	1.0	70 - 130	30	
Isopropylbenzene	ND	1.0	88	91	3.4	94	97	3.1	70 - 130	30	
m&p-Xylene	ND	2.0	86	90	4.5	91	95	4.3	70 - 130	30	
Methyl ethyl ketone	ND	5.0	84	94	11.2	76	73	4.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	100	109	8.6	98	101	3.0	70 - 130	30	
Methylene chloride	ND	5.0	82	87	5.9	84	87	3.5	70 - 130	30	
n-Butylbenzene	ND	1.0	89	92	3.3	95	95	0.0	70 - 130	30	
n-Propylbenzene	ND	1.0	86	89	3.4	91	96	5.3	70 - 130	30	
o-Xylene	ND	2.0	90	95	5.4	94	98	4.2	70 - 130	30	
p-Isopropyltoluene	ND	1.0	90	93	3.3	96	96	0.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	91	95	4.3	97	99	2.0	70 - 130	30	
Styrene	ND	5.0	90	94	4.3	93	96	3.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	88	93	5.5	94	97	3.1	70 - 130	30	
Tetrachloroethene	ND	5.0	93	94	1.1	99	102	3.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	91	100	9.4	81	81	0.0	70 - 130	30	
Toluene	ND	1.0	91	95	4.3	96	98	2.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	85	92	7.9	91	94	3.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	95	100	5.1	88	89	1.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	113	121	6.8	94	92	2.2	70 - 130	30	
Trichloroethene	ND	5.0	90	94	4.3	96	98	2.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	85	91	6.8	16	15	6.5	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	93	99	6.3	97	101	4.0	70 - 130	30	
Vinyl chloride	ND	5.0	84	90	6.9	82	83	1.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	102	%	100	101	1.0	100	99	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ07946

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Bromofluorobenzene	97	%		100	100	0.0	100	102	2.0	70 - 130	30
% Dibromofluoromethane	94	%		94	104	10.1	97	101	4.0	70 - 130	30
% Toluene-d8	97	%		101	100	1.0	103	101	2.0	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 404619 (ug/L), QC Sample No: BZ17198 (BZ07947)											
Semivolatiles by SIM											
2-Methylnaphthalene	ND	0.05		72	63	13.3				30 - 130	20
Acenaphthene	ND	0.05		87	83	4.7				30 - 130	20
Acenaphthylene	ND	0.04		78	80	2.5				30 - 130	20
Anthracene	ND	0.02		90	91	1.1				30 - 130	20
Benz(a)anthracene	ND	0.02		89	90	1.1				30 - 130	20
Benzo(a)pyrene	ND	0.02		77	77	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02		91	91	0.0				30 - 130	20
Benzo(ghi)perylene	ND	0.02		83	85	2.4				30 - 130	20
Benzo(k)fluoranthene	ND	0.02		82	83	1.2				30 - 130	20
Chrysene	ND	0.02		86	87	1.2				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01		88	90	2.2				30 - 130	20
Fluoranthene	ND	0.04		88	89	1.1				30 - 130	20
Fluorene	ND	0.05		86	86	0.0				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02		84	85	1.2				30 - 130	20
Naphthalene	ND	0.2		74	63	16.1				30 - 130	20
Phenanthrene	ND	0.05		84	84	0.0				30 - 130	20
Pyrene	ND	0.02		90	92	2.2				30 - 130	20
% 2-Fluorobiphenyl	69	%		77	73	5.3				30 - 130	20
% Nitrobenzene-d5	67	%		62	55	12.0				30 - 130	20
% Terphenyl-d14	80	%		87	92	5.6				30 - 130	20
Comment:											
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											

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
October 11, 2017

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ07946 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ07947	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	110000	8400	8400	ug/Kg
BZ07947	$8100SMR	Chrysene	CT / RSR DEC RES (mg/kg) / APS Organics	120000	110000	84000	84000	ug/Kg
BZ07947	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	49000	1000	1000	ug/Kg
BZ07947	$8100SMR	2-Methylnaphthalene	CT / RSR DEC RES (mg/kg) / APS Organics	740000	110000	270000	270000	ug/Kg
BZ07947	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	110000	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	110000	8400	8400	ug/Kg
BZ07947	$8100SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	740000	110000	5600	5600	ug/Kg
BZ07947	$8100SMR	Acenaphthene	CT / RSR GB (mg/kg) / APS Organics	370000	110000	84000	84000	ug/Kg
BZ07947	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	120000	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	49000	1000	1000	ug/Kg
BZ07947	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Fluorene	CT / RSR GB (mg/kg) / Semivolatiles	310000	110000	56000	56000	ug/Kg
BZ07947	$8100SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	910000	110000	56000	56000	ug/Kg
BZ07947	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	240000	110000	56000	56000	ug/Kg
BZ07947	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	110000	1000	1000	ug/Kg
BZ07947	$8100SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	750000	110000	40000	40000	ug/Kg
BZ07947	$8100SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	360000	110000	40000	40000	ug/Kg
BZ07947	$8100SMR	Acenaphthylene	CT / RSR GB (mg/kg) / Semivolatiles	ND	110000	84000	84000	ug/Kg
BZ07947	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	110000	110000	1000	1000	ug/Kg
BZ07947	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	580	90	90	ug/Kg
BZ07947	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	290	7	7	ug/Kg
BZ07947	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	580	40	40	ug/Kg
BZ07947	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GB (mg/kg) / APS Organics	ND	1400	800	800	ug/Kg
BZ07947	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	50000	2900	28000	28000	ug/Kg
BZ07947	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	580	210	210	ug/Kg
BZ07947	$8260MAR	Bromomethane	CT / RSR GB (mg/kg) / APS Organics	ND	1200	700	700	ug/Kg
BZ07947	$8260MAR	Isopropylbenzene	CT / RSR GB (mg/kg) / APS Organics	7700	2900	5000	5000	ug/Kg
BZ07947	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	670000	58000	56000	56000	ug/Kg
BZ07947	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	2900	1000	1000	ug/Kg
BZ07947	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	580	100	100	ug/Kg
BZ07947	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	290	100	100	ug/Kg
BZ07947	$8260MAR	1,2-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	290	200	200	ug/Kg
BZ07947	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	290	100	100	ug/Kg
BZ07947	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	580	200	200	ug/Kg
BZ07947	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	580	100	100	ug/Kg
BZ07947	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	ND	290	200	200	ug/Kg

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ07946 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ07947	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	21000	2300	500	500	mg/Kg
BZ07947	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	21000	2300	2500	2500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP SITE ***Project Number:***

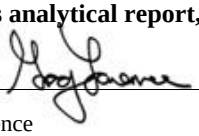
Laboratory Sample ID(s): BZ07946-BZ07948 ***Sampling Date(s):*** 9/22/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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 Section: VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, October 11, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ07946

Cyanide Narration

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

Instrument:

LACHAT 09/27/17-1 Brian Sheriden, Greg Danielewski, Chemist 09/27/17

BZ07946, BZ07948

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Site Specific):

Batch 403020 (BZ07946)

BZ07946, BZ07948

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

ETPH Narration

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

Instrument:

AU-FID21 09/27/17-1 Jeff Bucko, Chemist 09/27/17

BZ07946, BZ07948

The initial calibration (ETPH819I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 10/08/17-1 Jeff Bucko, Chemist 10/08/17

BZ07947

The initial calibration (ETPH918I) 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 404394 (BZ15319)

BZ07947

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.

PHOENIX

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SDG I.D.: GBZ07946

ETPH Narration

QC (Site Specific):

Batch 402990 (BZ07946)

BZ07946, BZ07948

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

Mercury Narration

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

Instrument:

MERLIN 09/27/17 07:41 Rick Schweitzer, Chemist 09/27/17

BZ07946, BZ07948

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 403170 (BZ09195)

BZ07946, BZ07948

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

ICP Metals Narration

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

Instrument:

ARCOS 09/26/17 08:26 Mike Arsenault, Chemist 09/26/17

BZ07948, DUP07946

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NY # 11301

Certification Report

October 11, 2017

SDG I.D.: GBZ07946

ICP Metals Narration

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):

Batch 402827 (BZ07946)

BZ07946, BZ07948

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

SVOA Narration

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

Instrument:

CHEM19 10/09/17-1 Damien Drobinski, Chemist 10/09/17

BZ07947

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_1006):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1009_02-SPLIT_1006):
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.

CHEM27 09/26/17-1 Damien Drobinski, Chemist 09/26/17

BZ07946, BZ07948

Initial Calibration Verification (CHEM27/SPLIT_0908):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.095 (0.1), Bis(2-chloroethoxy)methane 0.271 (0.3), Hexachlorobenzene 0.087 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/0926_04-SPLIT_0908):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

October 11, 2017

SDG I.D.: GBZ07946

SVOA Narration

99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.077 (0.1), Bis(2-chloroethoxy)methane 0.241 (0.3), Hexachlorobenzene 0.071 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 10/06/17-1 Damien Drobinski, Chemist 10/06/17

BZ07947

Initial Calibration Verification (CHEM29/SPLIT_0907):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: Naphthalene 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 (CHEM29/1006_02-SPLIT_0907):
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: Acenaphthene 0.842 (0.9)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 402985 (BZ09034)

BZ07946, BZ07948

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(22%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(22%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 403557 (Samples: BZ07948): -----

The QC recovery for one analyte is above the upper range but was not reported in the sample(s), therefore no significant bias is suspected. (2,2-Dichloropropane)

Instrument:

CHEM14 10/05/17-2 Jane Li, Chemist 10/05/17

BZ07947

Initial Calibration Verification (CHEM14/VT-0928A):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: None.

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RCP Certification Report

October 11, 2017

SDG I.D.: GBZ07946

VOA Narration

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

Continuing Calibration Verification (CHEM14/1005_29-VT-0928A):
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 10/06/17-1 Jane Li, Chemist 10/06/17

BZ07947

Initial Calibration Verification (CHEM14/VT-0928A):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromoform 29% (20%), trans-1,4-dichloro-2-butene 34% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1006_02-VT-0928A):
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.

CHEM26 09/26/17-2 Jane Li, Chemist 09/26/17

BZ07946

Initial Calibration Verification (CHEM26/VT-0926):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 33% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/0926_17-VT-0926):
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.

CHEM26 09/28/17-1 Jane Li, Chemist 09/28/17

BZ07948

Initial Calibration Verification (CHEM26/VT-0926):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 33% (20%)
The following compounds did not meet recommended response factors: None.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ07946

VOA Narration

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

Continuing Calibration Verification (CHEM26/0928_02-VT-0926):
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.

QC (Batch Specific):

Batch 403112 (BZ08571)

BZ07946

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

Batch 403557 (BZ08530)

BZ07948

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(134%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 404579 (BZ15545)

BZ07947

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

Batch 404803 (BZ15810)

BZ07947

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

Temperature Narration

The samples were received at 1.5C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 5 °C Pg 1 of 1

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwilley@Tighe&Bond.com

Customer: Tighe + Bond Inc.
Address: 213 Court Street
Middletown CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond West Fold

Project P.O.: 14-0755-004

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/22/17

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

Analysis Request: VOCs 8260 X; SVOCs 8270C; CT ETPH; CT RCP B&R Metals; TCLP Cyanide (Total)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260 X	SVOCs 8270C	CT ETPH	CT RCP B&R Metals	TCLP Cyanide (Total)	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml	PL H2SO4 [ ] 250ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
07946	MW-205 (25-26)	S	9/22/17	1025	X	X	X	X	X	3	1								
07947	MW-205 (35-37')	S	9/22/17	1115	Hold					3	1								
07948	SB-15 (24-25')	S	9/22/17	1440	X	X	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
DTC	Tighe + Bond Fridge	9/22/17	1900
[signature]	[signature]	9/23/17	13:25
[signature]	TRAN	09251717	1414

Comments, Special Requirements or Regulations:
Eversource MGP Rockville Quote
MW-205 (35-37') - Hold

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

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

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

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

State where samples were collected: CT

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

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

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, October 05, 2017 3:13 PM
To: Client Services
Subject: RE: Phoenix Labs - GBZ07946, ROCKVILLE MGP SITE - Report Ready

Sarah:

I think it was collected on the 9/22.

Could I get: VOCs, PAH (mass/ SPLP), ETPH ?

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: Client Services [mailto:clientservices@phoenixlabs.com]
Sent: Thursday, October 05, 2017 3:11 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: RE: Phoenix Labs - GBZ07946, ROCKVILLE MGP SITE - Report Ready

I don't see where we did **L**

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

From: Lynn E. Willey [mailto:LEWilley@tighebond.com]
Sent: Thursday, October 05, 2017 2:53 PM
To: Client Services
Subject: RE: Phoenix Labs - GBZ07946, ROCKVILLE MGP SITE - Report Ready

Sarah:

Did I activate MW-20S (35-37')? I thought that I did? Can you check?

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: Lynn E. Willey
Sent: Monday, October 02, 2017 4:23 PM
To: 'clientservices@phoenixlabs.com' <clientservices@phoenixlabs.com>
Subject: FW: Phoenix Labs - GBZ07946, ROCKVILLE MGP SITE - Report Ready

Hi Sarah:

Can you have this report updated for MW-205 to be MW-20"S"

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Monday, October 02, 2017 11:35 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ07946, ROCKVILLE MGP SITE - Report Ready

Delivery group GBZ07946 (ROCKVILLE MGP SITE) for the following samples:

BZ07946 - MW-205 (25-26 FT)
BZ07948 - SB-15 (24 FT)

is available for review. Please click the following link to view report data.

www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
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Manchester, CT 06374
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Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to thi s email.
cc'd:lewilley@tighebond.com

PHOENIX
Environmental Laboratories, Inc.

Friday, October 13, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ09607 - BZ09611

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

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

Analysis Report

October 13, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/26/17	10:20
Location Code:	TIGHE	Received by:	LB	09/26/17	18:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ09607
Phoenix ID: BZ09607

Project ID: ROCKVILLE MGP
Client ID: SB-01 (26.5-28.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	10/07/17	LK	SW6010C
Arsenic	0.97	0.68	mg/Kg	1	09/28/17	MA	SW6010C
Barium	90.1	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Beryllium	0.46	0.27	mg/Kg	1	09/28/17	MA	SW6010C
Cadmium	< 0.34	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Chromium	23.6	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Copper	36.1	0.34	mg/kg	1	09/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/29/17	MA	SW7471B
Nickel	13.7	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Lead	6.02	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Antimony	< 3.4	3.4	mg/Kg	1	09/28/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	10/03/17	MA	SW6010C
Thallium	< 3.1	3.1	mg/Kg	1	09/28/17	MA	SW6010C
Vanadium	29.9	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Zinc	29.4	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Percent Solid	95		%		09/26/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/27/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/27/17	CK/VCK	SW3545A
Mercury Digestion	Completed				09/28/17	W/W	SW7471B
Total Metals Digest	Completed				09/27/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	09/28/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/28/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	09/28/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-01 (26.5-28.5)

Phoenix I.D.: BZ09607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
2-Chlorotoluene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	09/30/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
4-Chlorotoluene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	09/30/17	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	09/30/17	JLI	SW8260C
Acrylonitrile	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Benzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Bromobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Bromodichloromethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Bromoform	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Bromomethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroform	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Chloromethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromomethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-01 (26.5-28.5)

Phoenix I.D.: BZ09607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	09/30/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/30/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/30/17	JLI	SW8260C
Naphthalene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
n-Butylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
n-Propylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
o-Xylene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
sec-Butylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Styrene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
tert-Butylbenzene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/30/17	JLI	SW8260C
Toluene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Total Xylenes	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/30/17	JLI	SW8260C
Trichloroethene	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/Kg	1	09/30/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	09/30/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	09/30/17	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	09/30/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	09/30/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/28/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-01 (26.5-28.5)

Phoenix I.D.: BZ09607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-butylphthalate	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-01 (26.5-28.5)

Phoenix I.D.: BZ09607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	67		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorophenol	38		%	1	09/28/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	09/28/17	DD	30 - 130 %
% Phenol-d5	50		%	1	09/28/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	09/28/17	DD	30 - 130 %
Field Extraction	Completed				09/26/17		SW5035A

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

Comments:

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

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

Phyllis Shiller, Laboratory Director
October 13, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 13, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/26/17	9:20
Location Code:	TIGHE	Received by:	LB	09/26/17	18:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ09607
Phoenix ID: BZ09608

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.31	0.31	mg/Kg	1	10/07/17	LK	SW6010C
Arsenic	1.54	0.63	mg/Kg	1	09/28/17	MA	SW6010C
Barium	36.1	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Beryllium	0.33	0.25	mg/Kg	1	09/28/17	MA	SW6010C
Cadmium	< 0.31	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Chromium	11.0	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Copper	12.4	0.31	mg/kg	1	09/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/29/17	MA	SW7471B
Nickel	7.06	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Lead	52.6	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Antimony	< 3.1	3.1	mg/Kg	1	09/28/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	10/03/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/28/17	MA	SW6010C
SPLP Barium	0.024	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/28/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/28/17	MA	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/28/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
Thallium	< 2.8	2.8	mg/Kg	1	09/28/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Phoenix I.D.: BZ09608

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/27/17	W/W	SW3005A
Vanadium	22.8	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Zinc	39.4	0.31	mg/Kg	1	09/28/17	MA	SW6010C
Percent Solid	94		%		09/26/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.54	0.53	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/27/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/27/17	JA/VCK	SW3545A
Mercury Digestion	Completed				09/28/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				09/27/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/26/17	W	SW1312
Total Metals Digest	Completed				09/27/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	09/29/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/29/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	09/29/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
2-Chlorotoluene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	09/29/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
4-Chlorotoluene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	09/29/17	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	09/29/17	JLI	SW8260C
Acrylonitrile	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Benzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Bromobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Phoenix I.D.: BZ09608

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Bromoform	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Bromomethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroform	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Chloromethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromomethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
m&p-Xylene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Naphthalene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
n-Butylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
n-Propylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
o-Xylene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
sec-Butylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Styrene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
tert-Butylbenzene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Toluene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Total Xylenes	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Trichloroethene	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/Kg	1	09/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	09/29/17	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	09/29/17	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	09/29/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	09/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Phoenix I.D.: BZ09608

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(a)pyrene	610	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(b)fluoranthene	350	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(ghi)perylene	620	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(k)fluoranthene	420	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenz(a,h)anthracene	340	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Phoenix I.D.: BZ09608

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	590	240	ug/Kg	1	09/28/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	80		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	57		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	09/28/17	DD	30 - 130 %
% Nitrobenzene-d5	59		%	1	09/28/17	DD	30 - 130 %
% Phenol-d5	51		%	1	09/28/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	09/28/17	DD	30 - 130 %
Field Extraction	Completed				09/26/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: TP-07 (7-8)

Phoenix I.D.: BZ09608

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

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

Comments:

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

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

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

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



Phyllis Shiller, Laboratory Director
October 13, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 13, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/26/17	10:20
Location Code:	TIGHE	Received by:	LB	09/26/17	18:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ09607
Phoenix ID: BZ09609

Project ID: ROCKVILLE MGP
Client ID: TP-06 (9-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	10/07/17	LK	SW6010C
Arsenic	1.03	0.64	mg/Kg	1	09/28/17	MA	SW6010C
Barium	27.8	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Beryllium	0.33	0.26	mg/Kg	1	09/28/17	MA	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Chromium	10.4	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Copper	15.9	0.32	mg/kg	1	09/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	09/29/17	MA	SW7471B
Nickel	7.95	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Lead	7.69	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	09/28/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	10/03/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	09/28/17	MA	SW6010C
Vanadium	18.5	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Zinc	39.8	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Percent Solid	93		%		09/26/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.49	0.49	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/27/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/27/17	JA/VCK	SW3545A
Mercury Digestion	Completed				09/28/17	W/W	SW7471B
Total Metals Digest	Completed				09/27/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	09/29/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/29/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	09/29/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-06 (9-10)

Phoenix I.D.: BZ09609

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2-Chlorotoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	09/29/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
4-Chlorotoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	09/29/17	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	09/29/17	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Benzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromodichloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromoform	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Ethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Isopropylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TP-06 (9-10)

Phoenix I.D.: BZ09609

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Naphthalene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
n-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
n-Propylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
o-Xylene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
sec-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Styrene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
tert-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Toluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Total Xylenes	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	09/29/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	09/29/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	09/29/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	09/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/28/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-06 (9-10)

Phoenix I.D.: BZ09609

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-butylphthalate	ND	700	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/28/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-06 (9-10)

Phoenix I.D.: BZ09609

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	09/28/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	09/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	60		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorophenol	45		%	1	09/28/17	DD	30 - 130 %
% Nitrobenzene-d5	65		%	1	09/28/17	DD	30 - 130 %
% Phenol-d5	56		%	1	09/28/17	DD	30 - 130 %
% Terphenyl-d14	62		%	1	09/28/17	DD	30 - 130 %
Field Extraction	Completed				09/26/17		SW5035A

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

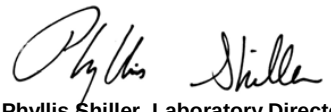
Comments:

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

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



Phyllis Shiller, Laboratory Director
October 13, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 13, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/26/17	14:20
Location Code:	TIGHE	Received by:	LB	09/26/17	18:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ09607
Phoenix ID: BZ09610

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.42	0.42	mg/Kg	1	10/07/17	LK	SW6010C
Arsenic	6.94	0.84	mg/Kg	1	09/28/17	MA	SW6010C
Barium	74.6	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Beryllium	0.56	0.34	mg/Kg	1	09/28/17	MA	SW6010C
Cadmium	0.53	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Chromium	17.8	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Copper	38.8	0.42	mg/kg	1	09/28/17	MA	SW6010C
Mercury	0.33	0.03	mg/Kg	1	09/29/17	MA	SW7471B
Nickel	13.1	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Lead	109	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Antimony	< 4.2	4.2	mg/Kg	1	09/28/17	MA	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	10/03/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Arsenic	0.007	0.004	mg/L	1	09/28/17	MA	SW6010C
SPLP Barium	0.040	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/28/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Copper	0.011	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/28/17	MA	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Lead	0.025	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/28/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/28/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/28/17	MA	SW6010C
SPLP Zinc	0.032	0.010	mg/L	1	09/28/17	MA	SW6010C
Thallium	< 3.8	3.8	mg/Kg	1	09/28/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Phoenix I.D.: BZ09610

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/27/17	W/W	SW3005A
Vanadium	30.5	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Zinc	160	0.42	mg/Kg	1	09/28/17	MA	SW6010C
Percent Solid	70		%		09/26/17	Q	SW846-%Solid
SPLP Cyanide	< 0.01	0.01	mg/L	1	10/12/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	10.7	0.71	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/27/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/27/17	JA/VCK	SW3545A
Mercury Digestion	Completed				09/28/17	W/W	SW7471B
SPLP Extraction Cyanide (Total)	Completed				10/10/17	W	SW1312
SPLP Digestion Mercury	Completed				09/27/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/26/17	W	SW1312
Total Metals Digest	Completed				09/27/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	16000	1100	mg/Kg	10	10/01/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	10/01/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	10/01/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	40000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1-Dichloroethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1-Dichloroethene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
1,1-Dichloropropene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2,4-Trimethylbenzene	74000	67000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2-Dibromoethane	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2-Dichloroethane	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
1,2-Dichloropropane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,3-Dichloropropane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	15000	ug/Kg	10000	09/29/17	JLI	SW8260C
2,2-Dichloropropane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
2-Chlorotoluene	ND	28000	ug/Kg	10000	09/29/17	JLI	SW8260C
2-Hexanone	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
2-Isopropyltoluene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
4-Chlorotoluene	ND	28000	ug/Kg	10000	09/29/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Acetone	ND	140000	ug/Kg	10000	09/29/17	JLI	SW8260C
Acrylonitrile	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
Benzene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Phoenix I.D.: BZ09610

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromobenzene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Bromochloromethane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Bromodichloromethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Bromoform	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Bromomethane	ND	38000	ug/Kg	10000	09/29/17	JLI	SW8260C
Carbon Disulfide	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Carbon tetrachloride	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Chlorobenzene	ND	20000	ug/Kg	10000	09/29/17	JLI	SW8260C
Chloroethane	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
Chloroform	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
Chloromethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	14000	ug/Kg	10000	09/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Dibromochloromethane	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Dibromomethane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	70000	ug/Kg	10000	09/29/17	JLI	SW8260C
Ethylbenzene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
Isopropylbenzene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
m&p-Xylene	57000	57000	ug/Kg	10000	09/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	20000	ug/Kg	10000	09/29/17	JLI	SW8260C
Methylene chloride	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Naphthalene	2800000	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
n-Butylbenzene	ND	70000	ug/Kg	10000	09/29/17	JLI	SW8260C
n-Propylbenzene	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
o-Xylene	40000	38000	ug/Kg	10000	09/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
sec-Butylbenzene	ND	70000	ug/Kg	10000	09/29/17	JLI	SW8260C
Styrene	ND	20000	ug/Kg	10000	09/29/17	JLI	SW8260C
tert-Butylbenzene	ND	70000	ug/Kg	10000	09/29/17	JLI	SW8260C
Tetrachloroethene	ND	19000	ug/Kg	10000	09/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	48000	ug/Kg	10000	09/29/17	JLI	SW8260C
Toluene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Total Xylenes	97000	38000	ug/Kg	10000	09/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	20000	ug/Kg	10000	09/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	190000	ug/Kg	10000	09/29/17	JLI	SW8260C
Trichloroethene	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	95000	ug/Kg	10000	09/29/17	JLI	SW8260C
Vinyl chloride	ND	9500	ug/Kg	10000	09/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	10000	09/29/17	JLI	70 - 130 %
% Bromofluorobenzene	101		%	10000	09/29/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	10000	09/29/17	JLI	70 - 130 %
% Toluene-d8	100		%	10000	09/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	4800	ug/Kg	20	09/28/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Phoenix I.D.: BZ09610

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	5600	ug/Kg	20	09/28/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	8000	ug/Kg	20	09/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	6400	ug/Kg	20	09/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	7000	ug/Kg	20	09/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	10000	ug/Kg	20	09/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	7900	ug/Kg	20	09/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	6300	ug/Kg	20	09/28/17	DD	SW8270D
2-Chloronaphthalene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2-Chlorophenol	ND	7200	ug/Kg	20	09/28/17	DD	SW8270D
2-Methylnaphthalene	380000	14000	ug/Kg	20	09/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2-Nitroaniline	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
2-Nitrophenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	20000	ug/Kg	20	09/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	9400	ug/Kg	20	09/28/17	DD	SW8270D
3-Nitroaniline	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	10000	ug/Kg	20	09/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	20000	ug/Kg	20	09/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
4-Chloroaniline	ND	9300	ug/Kg	20	09/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
4-Nitroaniline	ND	6700	ug/Kg	20	09/28/17	DD	SW8270D
4-Nitrophenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Acenaphthene	370000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Acenaphthylene	35000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Acetophenone	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Aniline	ND	8000	ug/Kg	20	09/28/17	DD	SW8270D
Anthracene	150000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benz(a)anthracene	85000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benzidine	ND	8000	ug/Kg	20	09/28/17	DD	SW8270D
Benzo(a)pyrene	68000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benzo(b)fluoranthene	33000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benzo(ghi)perylene	31000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benzo(k)fluoranthene	40000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Benzoic acid	ND	40000	ug/Kg	20	09/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	5500	ug/Kg	20	09/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	5400	ug/Kg	20	09/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	5500	ug/Kg	20	09/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	11000	ug/Kg	20	09/28/17	DD	SW8270D
Carbazole	ND	20000	ug/Kg	20	09/28/17	DD	SW8270D
Chrysene	85000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Dibenzofuran	22000	14000	ug/Kg	20	09/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Phoenix I.D.: BZ09610

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Dimethylphthalate	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Di-n-butylphthalate	ND	40000	ug/Kg	20	09/28/17	DD	SW8270D
Di-n-octylphthalate	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Fluoranthene	190000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Fluorene	190000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Hexachlorobenzene	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Hexachlorobutadiene	ND	7200	ug/Kg	20	09/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	8400	ug/Kg	20	09/28/17	DD	SW8270D
Hexachloroethane	ND	6000	ug/Kg	20	09/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	29000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Isophorone	ND	7400	ug/Kg	20	09/28/17	DD	SW8270D
Naphthalene	770000	70000	ug/Kg	100	10/06/17	DD	SW8270D
Nitrobenzene	ND	7000	ug/Kg	20	09/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	5600	ug/Kg	20	09/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	6500	ug/Kg	20	09/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	7700	ug/Kg	20	09/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	6000	ug/Kg	20	09/28/17	DD	SW8270D
Pentachlorophenol	ND	7500	ug/Kg	20	09/28/17	DD	SW8270D
Phenanthrene	600000	70000	ug/Kg	100	10/06/17	DD	SW8270D
Phenol	ND	14000	ug/Kg	20	09/28/17	DD	SW8270D
Pyrene	270000	14000	ug/Kg	20	09/28/17	DD	SW8270D
Pyridine	ND	4900	ug/Kg	20	09/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	20	09/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	20	09/28/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	20	09/28/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	09/28/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	20	09/28/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	09/28/17	DD	30 - 130 %
Field Extraction	Completed				09/26/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: TP-05 (5.75-6)

Phoenix I.D.: BZ09610

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:
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.

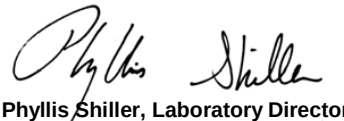
Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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

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



Phyllis Shiller, Laboratory Director
October 13, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 13, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/26/17	16:50
Location Code:	TIGHE	Received by:	LB	09/26/17	18:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ09607
Phoenix ID: BZ09611

Project ID: ROCKVILLE MGP
Client ID: TP-04 (6.5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	10/07/17	LK	SW6010C
Arsenic	2.57	0.65	mg/Kg	1	09/28/17	MA	SW6010C
Barium	54.3	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Beryllium	0.40	0.26	mg/Kg	1	09/28/17	MA	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Chromium	13.1	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Copper	38.3	0.32	mg/kg	1	09/28/17	MA	SW6010C
Mercury	0.06	0.03	mg/Kg	1	09/29/17	MA	SW7471B
Nickel	9.46	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Lead	58.1	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	09/28/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	10/03/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	09/28/17	MA	SW6010C
Vanadium	25.4	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Zinc	62.0	0.32	mg/Kg	1	09/28/17	MA	SW6010C
Percent Solid	91		%		09/26/17	Q	SW846-%Solid
SPLP Cyanide	0.01	0.01	mg/L	1	10/12/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	4.22	0.55	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				09/27/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/27/17	JA/VCK	SW3545A
Mercury Digestion	Completed				09/28/17	W/W	SW7471B
SPLP Extraction Cyanide (Total)	Completed				10/10/17	W	SW1312
Total Metals Digest	Completed				09/27/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	850	270	mg/Kg	5	09/29/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/29/17	JRB	CTETPH 8015D
QA/QC Surrogates							

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TP-04 (6.5-7)

Phoenix I.D.: BZ09611

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% n-Pentacosane	133		%	5	09/29/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	09/29/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2-Chlorotoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	09/29/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
4-Chlorotoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	09/29/17	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	09/29/17	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Benzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromodichloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromoform	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	09/29/17	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Ethylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TP-04 (6.5-7)

Phoenix I.D.: BZ09611

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
m&p-Xylene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	09/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Naphthalene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
n-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
n-Propylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
o-Xylene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
sec-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Styrene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
tert-Butylbenzene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Toluene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Total Xylenes	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	09/29/17	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	09/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	09/29/17	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	09/29/17	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	09/29/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	09/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylnaphthalene	280	250	ug/Kg	1	09/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: TP-04 (6.5-7)

Phoenix I.D.: BZ09611

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	09/28/17	DD	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthene	250	250	ug/Kg	1	09/28/17	DD	SW8270D
Acenaphthylene	4200	250	ug/Kg	1	09/28/17	DD	SW8270D
Acetophenone	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Aniline	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
Anthracene	1300	250	ug/Kg	1	09/28/17	DD	SW8270D
Benz(a)anthracene	1800	250	ug/Kg	1	09/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(a)pyrene	7300	250	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(b)fluoranthene	4700	250	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(ghi)perylene	7500	250	ug/Kg	1	09/28/17	DD	SW8270D
Benzo(k)fluoranthene	3900	250	ug/Kg	1	09/28/17	DD	SW8270D
Benzoic acid	ND	720	ug/Kg	1	09/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Carbazole	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
Chrysene	3000	250	ug/Kg	1	09/28/17	DD	SW8270D
Dibenz(a,h)anthracene	1000	250	ug/Kg	1	09/28/17	DD	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-butylphthalate	ND	720	ug/Kg	1	09/28/17	DD	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Fluoranthene	1500	250	ug/Kg	1	09/28/17	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	5800	250	ug/Kg	1	09/28/17	DD	SW8270D
Isophorone	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Naphthalene	510	250	ug/Kg	1	09/28/17	DD	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	09/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	09/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: TP-04 (6.5-7)

Phoenix I.D.: BZ09611

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pentachlorophenol	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
Phenanthrene	870	250	ug/Kg	1	09/28/17	DD	SW8270D
Phenol	ND	250	ug/Kg	1	09/28/17	DD	SW8270D
Pyrene	3600	250	ug/Kg	1	09/28/17	DD	SW8270D
Pyridine	ND	360	ug/Kg	1	09/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	65		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	55		%	1	09/28/17	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	09/28/17	DD	30 - 130 %
% Nitrobenzene-d5	55		%	1	09/28/17	DD	30 - 130 %
% Phenol-d5	49		%	1	09/28/17	DD	30 - 130 %
% Terphenyl-d14	57		%	1	09/28/17	DD	30 - 130 %
Field Extraction	Completed				09/26/17		SW5035A

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

Comments:

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

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.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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

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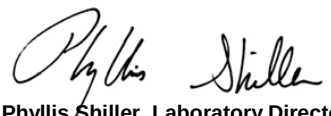

Phyllis Shiller, Laboratory Director
October 13, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

October 13, 2017

QA/QC Data

SDG I.D.: GBZ09607

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 403104 (mg/L), QC Sample No: BZ01226 (BZ09608, BZ09610)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	104			105			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	103			107			75 - 125	20	
Barium	BRL	0.010	0.072	0.068	5.70	111			108			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	107			109			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			105			75 - 125	20	
Chromium	BRL	0.010	0.014	0.013	NC	102			104			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	108			104			75 - 125	20	
Lead	BRL	0.010	0.134	0.125	6.90	101			104			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	101			103			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	104			108			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	103			104			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	103			103			75 - 125	20	
Zinc	BRL	0.010	0.062	0.059	5.00	103			104			75 - 125	20	
QA/QC Batch 403099 (mg/L), QC Sample No: BZ09195 (BZ09608, BZ09610)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	100			91.6			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 403289 (mg/kg), QC Sample No: BZ09274 (BZ09607, BZ09608, BZ09609, BZ09610, BZ09611)														
Mercury - Soil	BRL	0.02	0.08	0.07	NC	94.7	94.2	0.5	81.7			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 403191 (mg/kg), QC Sample No: BZ09330 (BZ09607, BZ09608, BZ09609, BZ09610, BZ09611)														
ICP Metals - Soil														
Antimony	BRL	2.9	<3.5	<3.8	NC	93.8			96.2			75 - 125	30	
Arsenic	BRL	0.59	3.54	2.89	NC	76.2			96.8			75 - 125	30	
Barium	BRL	0.29	86.2	82.4	4.50	76.0			111			75 - 125	30	
Beryllium	BRL	0.24	0.37	0.35	NC	78.9			96.7			75 - 125	30	
Cadmium	BRL	0.29	<0.35	<0.38	NC	82.8			97.0			75 - 125	30	
Chromium	BRL	0.29	12.4	11.6	6.70	75.5			99.5			75 - 125	30	
Copper	BRL	0.29	14.8	13.4	9.90	80.8			116			75 - 125	30	
Lead	BRL	0.29	260	362	32.8	77.2			102			75 - 125	30	r
Nickel	BRL	0.29	13.4	15.7	15.8	75.7			100			75 - 125	30	
Selenium	BRL	1.2	<1.4	<1.5	NC	96.5			90.7			75 - 125	30	
Silver	BRL	0.29	<0.35	<0.38	NC	93.0			114			75 - 125	30	
Thallium	BRL	2.6	<3.1	<3.5	NC	75.2			99.6			75 - 125	30	
Vanadium	BRL	0.29	17.9	19.8	10.1	81.6			97.9			75 - 125	30	
Zinc	BRL	0.29	51.6	51.7	0.20	93.7			105			75 - 125	30	

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

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QA/QC Report

October 13, 2017

QA/QC Data

SDG I.D.: GBZ09607

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 403712 (mg/Kg), QC Sample No: BZ09607 50X (BZ09607, BZ09608, BZ09609, BZ09610, BZ09611)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	95.1			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 405206 (mg/L), QC Sample No: BZ18923 (BZ09610, BZ09611)													
Total Cyanide	BRL	0.01	<0.010	<0.01	NC	99.3			105			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 13, 2017

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 403180 (mg/Kg), QC Sample No: BZ08784 (BZ09607)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	94			67	92	31.4	60 - 120	30	r
% n-Pentacosane	77	%	74			64	75	15.8	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 403196 (ug/kg), QC Sample No: BZ09608 (BZ09607, BZ09608, BZ09609, BZ09610, BZ09611)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	60	56	6.9	55	54	1.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	56	51	9.3	52	52	0.0	30 - 130	30	
1,2-Dichlorobenzene	ND	180	56	51	9.3	53	54	1.9	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	76	71	6.8	66	66	0.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	52	48	8.0	49	51	4.0	30 - 130	30	
1,4-Dichlorobenzene	ND	230	56	51	9.3	53	54	1.9	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	67	63	6.2	61	61	0.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	65	61	6.3	59	60	1.7	30 - 130	30	
2,4-Dichlorophenol	ND	130	64	60	6.5	58	58	0.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	69	65	6.0	62	60	3.3	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	13	11	16.7	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	71	66	7.3	62	63	1.6	30 - 130	30	
2,6-Dinitrotoluene	ND	130	75	71	5.5	67	67	0.0	30 - 130	30	
2-Chloronaphthalene	ND	230	64	61	4.8	57	59	3.4	30 - 130	30	
2-Chlorophenol	ND	230	60	55	8.7	57	56	1.8	30 - 130	30	
2-Methylnaphthalene	ND	230	61	57	6.8	56	56	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	63	58	8.3	65	58	11.4	30 - 130	30	
2-Nitroaniline	ND	330	121	110	9.5	101	105	3.9	30 - 130	30	
2-Nitrophenol	ND	230	78	73	6.6	73	73	0.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	74	68	8.5	67	67	0.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	97	88	9.7	46	53	14.1	30 - 130	30	
3-Nitroaniline	ND	330	82	75	8.9	70	70	0.0	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	24	23	4.3	30 - 130	30	l,m
4-Bromophenyl phenyl ether	ND	230	64	60	6.5	57	57	0.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	71	68	4.3	65	65	0.0	30 - 130	30	
4-Chloroaniline	ND	230	80	75	6.5	70	69	1.4	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	75	71	5.5	67	68	1.5	30 - 130	30	
4-Nitroaniline	ND	230	83	77	7.5	71	73	2.8	30 - 130	30	
4-Nitrophenol	ND	230	88	83	5.8	85	90	5.7	30 - 130	30	
Acenaphthene	ND	230	75	69	8.3	66	67	1.5	30 - 130	30	
Acenaphthylene	ND	130	64	59	8.1	59	59	0.0	30 - 130	30	
Acetophenone	ND	230	62	57	8.4	58	58	0.0	30 - 130	30	
Aniline	ND	330	57	57	0.0	42	36	15.4	30 - 130	30	
Anthracene	ND	230	71	66	7.3	64	65	1.6	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benz(a)anthracene	ND	230	70	64	9.0	58	60	3.4	30 - 130	30	
Benzidine	ND	330	41	36	13.0	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	68	63	7.6	61	51	17.9	30 - 130	30	
Benzo(b)fluoranthene	ND	160	71	66	7.3	56	54	3.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	61	56	8.5	43	40	7.2	30 - 130	30	
Benzo(k)fluoranthene	ND	230	72	66	8.7	57	53	7.3	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	22	24	8.7	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	77	71	8.1	70	70	0.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	64	59	8.1	58	58	0.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	55	45	20.0	52	51	1.9	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	63	59	6.6	60	60	0.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	77	71	8.1	74	73	1.4	30 - 130	30	
Carbazole	ND	230	72	67	7.2	64	65	1.6	30 - 130	30	
Chrysene	ND	230	74	68	8.5	65	66	1.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	67	61	9.4	42	44	4.7	30 - 130	30	
Dibenzofuran	ND	230	70	66	5.9	62	62	0.0	30 - 130	30	
Diethyl phthalate	ND	230	74	69	7.0	64	65	1.6	30 - 130	30	
Dimethylphthalate	ND	230	70	65	7.4	61	62	1.6	30 - 130	30	
Di-n-butylphthalate	ND	670	76	69	9.7	65	65	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	76	70	8.2	63	66	4.7	30 - 130	30	
Fluoranthene	ND	230	71	65	8.8	61	62	1.6	30 - 130	30	
Fluorene	ND	230	74	69	7.0	66	66	0.0	30 - 130	30	
Hexachlorobenzene	ND	130	73	69	5.6	64	65	1.6	30 - 130	30	
Hexachlorobutadiene	ND	230	56	53	5.5	52	54	3.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	69	65	6.0	36	38	5.4	30 - 130	30	
Hexachloroethane	ND	130	56	51	9.3	52	54	3.8	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	63	57	10.0	41	40	2.5	30 - 130	30	
Isophorone	ND	130	63	59	6.6	57	58	1.7	30 - 130	30	
Naphthalene	ND	230	61	57	6.8	58	58	0.0	30 - 130	30	
Nitrobenzene	ND	130	70	65	7.4	66	65	1.5	30 - 130	30	
N-Nitrosodimethylamine	ND	230	64	57	11.6	63	64	1.6	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	72	66	8.7	67	66	1.5	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75	70	6.9	63	61	3.2	30 - 130	30	
Pentachloronitrobenzene	ND	230	74	68	8.5	63	64	1.6	30 - 130	30	
Pentachlorophenol	ND	230	40	34	16.2	65	63	3.1	30 - 130	30	
Phenanthrene	ND	130	70	65	7.4	63	62	1.6	30 - 130	30	
Phenol	ND	230	64	53	18.8	56	55	1.8	30 - 130	30	
Pyrene	ND	230	71	65	8.8	63	63	0.0	30 - 130	30	
Pyridine	ND	230	46	42	9.1	32	32	0.0	30 - 130	30	
% 2,4,6-Tribromophenol	39	%	87	81	7.1	80	81	1.2	30 - 130	30	
% 2-Fluorobiphenyl	33	%	64	61	4.8	59	59	0.0	30 - 130	30	
% 2-Fluorophenol	23	%	53	49	7.8	51	50	2.0	30 - 130	30	s
% Nitrobenzene-d5	33	%	66	61	7.9	63	62	1.6	30 - 130	30	
% Phenol-d5	29	%	63	59	6.6	57	57	0.0	30 - 130	30	s
% Terphenyl-d14	38	%	69	65	6.0	61	61	0.0	30 - 130	30	

Comment:

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

QA/QC Batch 403181 (mg/Kg), QC Sample No: BZ10102 (BZ09608, BZ09609, BZ09610, BZ09611)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	85	84	1.2	94	88	6.6	60 - 120	30	
% n-Pentacosane	68	%	76	69	9.7	74	68	8.5	50 - 150	30	

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
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 403788 (ug/kg), QC Sample No: BZ11322 (BZ09608, BZ09609, BZ09610 (10000X) , BZ09611)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	115	121	5.1	104			70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	119	125	4.9	114			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	116	122	5.0	113			70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	116	121	4.2	112			70 - 130	30	
1,1-Dichloroethane	ND	5.0	117	123	5.0	115			70 - 130	30	
1,1-Dichloroethene	ND	5.0	116	124	6.7	106			70 - 130	30	
1,1-Dichloropropene	ND	5.0	119	127	6.5	117			70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	116	124	6.7	119			70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	111	116	4.4	112			70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	114	125	9.2	118			70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	110	118	7.0	110			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	113	120	6.0	102			70 - 130	30	
1,2-Dibromoethane	ND	5.0	117	121	3.4	112			70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	113	120	6.0	112			70 - 130	30	
1,2-Dichloroethane	ND	5.0	119	123	3.3	120			70 - 130	30	
1,2-Dichloropropane	ND	5.0	115	119	3.4	114			70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	114	123	7.6	112			70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	115	123	6.7	113			70 - 130	30	
1,3-Dichloropropane	ND	5.0	113	118	4.3	111			70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	113	120	6.0	111			70 - 130	30	
2,2-Dichloropropane	ND	5.0	130	137	5.2	120			70 - 130	30	l
2-Chlorotoluene	ND	5.0	113	120	6.0	112			70 - 130	30	
2-Hexanone	ND	25	88	93	5.5	89			70 - 130	30	
2-Isopropyltoluene	ND	5.0	96	103	7.0	94			70 - 130	30	
4-Chlorotoluene	ND	5.0	113	121	6.8	111			70 - 130	30	
4-Methyl-2-pentanone	ND	25	96	101	5.1	94			70 - 130	30	
Acetone	ND	10	75	78	3.9	61			70 - 130	30	m
Acrylonitrile	ND	5.0	97	102	5.0	94			70 - 130	30	
Benzene	ND	1.0	115	120	4.3	112			70 - 130	30	
Bromobenzene	ND	5.0	115	120	4.3	112			70 - 130	30	
Bromochloromethane	ND	5.0	118	121	2.5	112			70 - 130	30	
Bromodichloromethane	ND	5.0	118	122	3.3	108			70 - 130	30	
Bromoform	ND	5.0	113	120	6.0	92			70 - 130	30	
Bromomethane	ND	5.0	90	93	3.3	47			70 - 130	30	m
Carbon Disulfide	ND	5.0	99	106	6.8	86			70 - 130	30	
Carbon tetrachloride	ND	5.0	120	126	4.9	103			70 - 130	30	
Chlorobenzene	ND	5.0	112	119	6.1	111			70 - 130	30	
Chloroethane	ND	5.0	92	96	4.3	17			70 - 130	30	m
Chloroform	ND	5.0	114	120	5.1	109			70 - 130	30	
Chloromethane	ND	5.0	86	92	6.7	79			70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	118	122	3.3	113			70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	120	126	4.9	113			70 - 130	30	
Dibromochloromethane	ND	3.0	119	123	3.3	103			70 - 130	30	
Dibromomethane	ND	5.0	117	121	3.4	112			70 - 130	30	
Dichlorodifluoromethane	ND	5.0	101	108	6.7	93			70 - 130	30	
Ethylbenzene	ND	1.0	114	120	5.1	111			70 - 130	30	
Hexachlorobutadiene	ND	5.0	114	128	11.6	120			70 - 130	30	

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Isopropylbenzene	ND	1.0	115	124	7.5	115			70 - 130	30	
m&p-Xylene	ND	2.0	113	122	7.7	111			70 - 130	30	
Methyl ethyl ketone	ND	5.0	90	93	3.3	86			70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	105	109	3.7	98			70 - 130	30	
Methylene chloride	ND	5.0	88	92	4.4	79			70 - 130	30	
Naphthalene	ND	5.0	123	130	5.5	126			70 - 130	30	
n-Butylbenzene	ND	1.0	112	125	11.0	113			70 - 130	30	
n-Propylbenzene	ND	1.0	114	122	6.8	112			70 - 130	30	
o-Xylene	ND	2.0	116	122	5.0	116			70 - 130	30	
p-Isopropyltoluene	ND	1.0	114	125	9.2	115			70 - 130	30	
sec-Butylbenzene	ND	1.0	117	128	9.0	116			70 - 130	30	
Styrene	ND	5.0	116	122	5.0	114			70 - 130	30	
tert-Butylbenzene	ND	1.0	115	124	7.5	114			70 - 130	30	
Tetrachloroethene	ND	5.0	116	126	8.3	116			70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	95	101	6.1	93			70 - 130	30	
Toluene	ND	1.0	116	121	4.2	112			70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	114	121	6.0	104			70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	118	124	5.0	108			70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	97	104	7.0	78			70 - 130	30	
Trichloroethene	ND	5.0	117	126	7.4	114			70 - 130	30	
Trichlorofluoromethane	ND	5.0	85	90	5.7	14			70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	98	106	7.8	93			70 - 130	30	
Vinyl chloride	ND	5.0	88	94	6.6	70			70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	100	100	0.0	99			70 - 130	30	
% Bromofluorobenzene	99	%	102	101	1.0	104			70 - 130	30	
% Dibromofluoromethane	100	%	100	102	2.0	99			70 - 130	30	
% Toluene-d8	100	%	100	100	0.0	101			70 - 130	30	

Comment:

The MSD is not reported for this batch.

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

QA/QC Batch 403775 (ug/kg), QC Sample No: BZ12384 (BZ09607)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	117	100	15.7	96	111	14.5	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	113	97	15.2	93	108	14.9	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	115	93	21.2	88	104	16.7	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	112	92	19.6	87	102	15.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	115	96	18.0	93	108	14.9	70 - 130	30
1,1-Dichloroethene	ND	5.0	109	93	15.8	90	105	15.4	70 - 130	30
1,1-Dichloropropene	ND	5.0	113	96	16.3	93	109	15.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	106	89	17.4	81	90	10.5	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	107	86	21.8	80	95	17.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	100	84	17.4	76	82	7.6	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	110	90	20.0	88	103	15.7	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	111	96	14.5	80	99	21.2	70 - 130	30
1,2-Dibromoethane	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	109	91	18.0	88	100	12.8	70 - 130	30
1,2-Dichloroethane	ND	5.0	112	93	18.5	89	103	14.6	70 - 130	30
1,2-Dichloropropane	ND	5.0	113	96	16.3	93	106	13.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	111	92	18.7	90	104	14.4	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	110	90	20.0	88	101	13.8	70 - 130	30
1,3-Dichloropropane	ND	5.0	110	90	20.0	87	103	16.8	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	108	89	19.3	85	98	14.2	70 - 130	30

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,2-Dichloropropane	ND	5.0	118	100	16.5	86	103	18.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	110	92	17.8	91	106	15.2	70 - 130	30	
2-Hexanone	ND	25	85	69	20.8	67	75	11.3	70 - 130	30	l,m
2-Isopropyltoluene	ND	5.0	108	90	18.2	89	103	14.6	70 - 130	30	
4-Chlorotoluene	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	76	18.0	68	78	13.7	70 - 130	30	m
Acetone	ND	10	82	70	15.8	46	55	17.8	70 - 130	30	m
Acrylonitrile	ND	5.0	101	88	13.8	74	85	13.8	70 - 130	30	
Benzene	ND	1.0	112	95	16.4	93	108	14.9	70 - 130	30	
Bromobenzene	ND	5.0	112	93	18.5	90	107	17.3	70 - 130	30	
Bromochloromethane	ND	5.0	109	91	18.0	85	98	14.2	70 - 130	30	
Bromodichloromethane	ND	5.0	118	100	16.5	93	110	16.7	70 - 130	30	
Bromoform	ND	5.0	116	98	16.8	84	100	17.4	70 - 130	30	
Bromomethane	ND	5.0	125	101	21.2	94	114	19.2	70 - 130	30	
Carbon Disulfide	ND	5.0	120	101	17.2	90	110	20.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	119	99	18.3	96	112	15.4	70 - 130	30	
Chlorobenzene	ND	5.0	110	92	17.8	90	105	15.4	70 - 130	30	
Chloroethane	ND	5.0	109	94	14.8	89	105	16.5	70 - 130	30	
Chloroform	ND	5.0	110	96	13.6	93	106	13.1	70 - 130	30	
Chloromethane	ND	5.0	104	89	15.5	87	94	7.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	113	95	17.3	92	106	14.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	121	102	17.0	96	110	13.6	70 - 130	30	
Dibromochloromethane	ND	3.0	126	103	20.1	96	114	17.1	70 - 130	30	
Dibromomethane	ND	5.0	112	93	18.5	88	101	13.8	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	131	112	15.6	96	115	18.0	70 - 130	30	l
Ethylbenzene	ND	1.0	110	91	18.9	92	106	14.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	110	93	16.7	86	97	12.0	70 - 130	30	
Isopropylbenzene	ND	1.0	114	95	18.2	95	111	15.5	70 - 130	30	
m&p-Xylene	ND	2.0	108	90	18.2	89	103	14.6	70 - 130	30	
Methyl ethyl ketone	ND	5.0	89	78	13.2	62	74	17.6	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	112	96	15.4	87	102	15.9	70 - 130	30	
Methylene chloride	ND	5.0	104	88	16.7	83	98	16.6	70 - 130	30	
Naphthalene	ND	5.0	115	97	17.0	88	97	9.7	70 - 130	30	
n-Butylbenzene	ND	1.0	110	91	18.9	87	97	10.9	70 - 130	30	
n-Propylbenzene	ND	1.0	110	91	18.9	90	103	13.5	70 - 130	30	
o-Xylene	ND	2.0	113	94	18.4	92	106	14.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	112	95	16.4	91	105	14.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	97	17.8	95	112	16.4	70 - 130	30	
Styrene	ND	5.0	111	92	18.7	90	105	15.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	114	95	18.2	95	111	15.5	70 - 130	30	
Tetrachloroethene	ND	5.0	112	94	17.5	91	105	14.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	94	79	17.3	68	78	13.7	70 - 130	30	m
Toluene	ND	1.0	113	94	18.4	94	109	14.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	109	92	16.9	90	102	12.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	116	97	17.8	88	100	12.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	119	98	19.4	82	95	14.7	70 - 130	30	
Trichloroethene	ND	5.0	114	96	17.1	92	108	16.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	102	87	15.9	82	96	15.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	89	17.4	84	96	13.3	70 - 130	30	
Vinyl chloride	ND	5.0	109	92	16.9	87	102	15.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	102	101	1.0	100	98	2.0	70 - 130	30	
% Bromofluorobenzene	101	%	98	101	3.0	97	99	2.0	70 - 130	30	
% Dibromofluoromethane	90	%	101	102	1.0	104	100	3.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ09607

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Toluene-d8	97	%		99	100	1.0	102	102	0.0	70 - 130	30

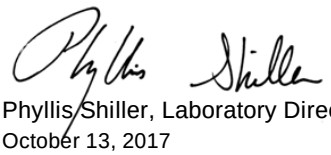
Comment:

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

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.
s = This parameter is outside laboratory Blank Surrogate 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
October 13, 2017

Friday, October 13, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ09607 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ09610	$8260MAR	Total Xylenes	CT / RSR GB (mg/kg) / Volatiles	97000	38000	19500	19500	ug/Kg
BZ09610	$8260MAR	Bromodichloromethane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	19000	18000	18000	ug/Kg
BZ09610	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	19000	90	90	ug/Kg
BZ09610	$8260MAR	Bromomethane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	38000	34000	34000	ug/Kg
BZ09610	$8260MAR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2800000	95000	1000000	1000000	ug/Kg
BZ09610	$8260MAR	Acrylonitrile	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9500	1100	1100	ug/Kg
BZ09610	$8260MAR	Methylene chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	95000	82000	82000	ug/Kg
BZ09610	$8260MAR	Carbon tetrachloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	4700	4700	ug/Kg
BZ09610	$8260MAR	Tetrachloroethene	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	12000	12000	ug/Kg
BZ09610	$8260MAR	1,2-Dichloropropane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	9000	9000	ug/Kg
BZ09610	$8260MAR	1,2-Dichloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9500	6700	6700	ug/Kg
BZ09610	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9500	7	7	ug/Kg
BZ09610	$8260MAR	1,1-Dichloroethene	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9500	1000	1000	ug/Kg
BZ09610	$8260MAR	Dibromochloromethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	7300	7300	ug/Kg
BZ09610	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	9500	320	320	ug/Kg
BZ09610	$8260MAR	1,1,2-Trichloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	11000	11000	ug/Kg
BZ09610	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	19000	3100	3100	ug/Kg
BZ09610	$8260MAR	2-Hexanone	CT / RSR GB (mg/kg) / APS Organics	ND	95000	7000	7000	ug/Kg
BZ09610	$8260MAR	Bromomethane	CT / RSR GB (mg/kg) / APS Organics	ND	38000	700	700	ug/Kg
BZ09610	$8260MAR	Carbon Disulfide	CT / RSR GB (mg/kg) / APS Organics	ND	19000	8000	8000	ug/Kg
BZ09610	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	19000	210	210	ug/Kg
BZ09610	$8260MAR	Isopropylbenzene	CT / RSR GB (mg/kg) / APS Organics	ND	9500	5000	5000	ug/Kg
BZ09610	$8260MAR	Chloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	19000	3600	3600	ug/Kg
BZ09610	$8260MAR	Hexachlorobutadiene	CT / RSR GB (mg/kg) / APS Organics	ND	9500	1500	1500	ug/Kg
BZ09610	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	19000	40	40	ug/Kg
BZ09610	$8260MAR	n-Propylbenzene	CT / RSR GB (mg/kg) / APS Organics	ND	19000	10000	10000	ug/Kg
BZ09610	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	74000	67000	28000	28000	ug/Kg
BZ09610	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GB (mg/kg) / APS Organics	ND	48000	800	800	ug/Kg
BZ09610	$8260MAR	1,3,5-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	ND	95000	28000	28000	ug/Kg
BZ09610	$8260MAR	2-Isopropyltoluene	CT / RSR GB (mg/kg) / APS Organics	ND	9500	5000	5000	ug/Kg
BZ09610	$8260MAR	Chloroethane	CT / RSR GB (mg/kg) / APS Organics	ND	9500	1500	1500	ug/Kg
BZ09610	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	2800000	95000	56000	56000	ug/Kg
BZ09610	$8260MAR	Methyl Ethyl Ketone	CT / RSR GB (mg/kg) / Volatiles	ND	95000	80000	80000	ug/Kg
BZ09610	$8260MAR	Tetrachloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	19000	1000	1000	ug/Kg
BZ09610	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	95000	1000	1000	ug/Kg
BZ09610	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	200	200	ug/Kg
BZ09610	$8260MAR	Ethylbenzene	CT / RSR GB (mg/kg) / Volatiles	ND	95000	10100	10100	ug/Kg
BZ09610	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	100	100	ug/Kg
BZ09610	$8260MAR	Trichloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	9500	1000	1000	ug/Kg
BZ09610	$8260MAR	Vinyl chloride	CT / RSR GB (mg/kg) / Volatiles	ND	9500	400	400	ug/Kg
BZ09610	$8260MAR	Chloroform	CT / RSR GB (mg/kg) / Volatiles	ND	9500	1200	1200	ug/Kg
BZ09610	$8260MAR	Toluene	CT / RSR GB (mg/kg) / Volatiles	ND	95000	67000	67000	ug/Kg

Friday, October 13, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ09607 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ09610	$8260MAR	Bromoform	CT / RSR GB (mg/kg) / Volatiles	ND	19000	800	800	ug/Kg
BZ09610	$8260MAR	1,2-Dichloropropane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	1000	1000	ug/Kg
BZ09610	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	9500	100	100	ug/Kg
BZ09610	$8260MAR	1,2-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	9500	200	200	ug/Kg
BZ09610	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	ND	9500	200	200	ug/Kg
BZ09610	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	9500	100	100	ug/Kg
BZ09610	$8260MAR	4-Methyl-2-pentanone	CT / RSR GB (mg/kg) / Volatiles	ND	95000	14000	14000	ug/Kg
BZ09610	$8260MAR	1,1-Dichloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	9500	1400	1400	ug/Kg
BZ09610	$8260MAR	1,1-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	14000	14000	ug/Kg
BZ09610	$8260MAR	1,1,2-Trichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	1000	1000	ug/Kg
BZ09610	$8260MAR	Carbon tetrachloride	CT / RSR GB (mg/kg) / Volatiles	ND	19000	1000	1000	ug/Kg
BZ09610	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	19000	100	100	ug/Kg
BZ09610	$8260MAR	1,2-Dichlorobenzene	CT / RSR GB (mg/kg) / Volatiles	ND	9500	3100	3100	ug/Kg
BZ09610	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6300	900	900	ug/Kg
BZ09610	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	6500	200	200	ug/Kg
BZ09610	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	9400	1400	1400	ug/Kg
BZ09610	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7900	900	900	ug/Kg
BZ09610	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	9300	3100	3100	ug/Kg
BZ09610	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	29000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	8000	770	770	ug/Kg
BZ09610	$8270-SMR	2-Methylnaphthalene	CT / RSR DEC RES (mg/kg) / APS Organics	380000	14000	270000	270000	ug/Kg
BZ09610	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5600	200	200	ug/Kg
BZ09610	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	31000	14000	8400	8400	ug/Kg
BZ09610	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	8000	200	200	ug/Kg
BZ09610	$8270-SMR	Chrysene	CT / RSR DEC RES (mg/kg) / APS Organics	85000	14000	84000	84000	ug/Kg
BZ09610	$8270-SMR	Nitrobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	7000	4000	4000	ug/Kg
BZ09610	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	68000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	85000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Pentachlorophenol	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	7500	5100	5100	ug/Kg
BZ09610	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	22000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	40000	14000	8400	8400	ug/Kg
BZ09610	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	5400	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	33000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	4800	1000	1000	ug/Kg
BZ09610	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	7000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Hexachlorobutadiene	CT / RSR GB (mg/kg) / APS Organics	ND	7200	1500	1500	ug/Kg
BZ09610	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	6000	1400	1400	ug/Kg
BZ09610	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	7700	1400	1400	ug/Kg
BZ09610	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	31000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	6500	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	8000	1000	1000	ug/Kg

Friday, October 13, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ09607 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ09610	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	5600	1000	1000	ug/Kg
BZ09610	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	8000	1200	1200	ug/Kg
BZ09610	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	20000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	85000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	8000	1000	1000	ug/Kg
BZ09610	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	380000	14000	5600	5600	ug/Kg
BZ09610	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	29000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Bis(2-chloroethoxy)methane	CT / RSR GB (mg/kg) / APS Organics	ND	5500	4200	4200	ug/Kg
BZ09610	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	14000	2000	2000	ug/Kg
BZ09610	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	6400	1000	1000	ug/Kg
BZ09610	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	4900	1000	1000	ug/Kg
BZ09610	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	10000	2800	2800	ug/Kg
BZ09610	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	7900	1000	1000	ug/Kg
BZ09610	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	6300	1000	1000	ug/Kg
BZ09610	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	22000	14000	1400	1400	ug/Kg
BZ09610	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	9400	1000	1000	ug/Kg
BZ09610	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	14000	2000	2000	ug/Kg
BZ09610	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	10000	2000	2000	ug/Kg
BZ09610	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	9300	1000	1000	ug/Kg
BZ09610	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	6700	2000	2000	ug/Kg
BZ09610	$8270-SMR	Acenaphthene	CT / RSR GB (mg/kg) / APS Organics	370000	14000	84000	84000	ug/Kg
BZ09610	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	7500	1000	1000	ug/Kg
BZ09610	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	270000	14000	40000	40000	ug/Kg
BZ09610	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	770000	70000	56000	56000	ug/Kg
BZ09610	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	600000	70000	40000	40000	ug/Kg
BZ09610	$8270-SMR	Fluorene	CT / RSR GB (mg/kg) / Semivolatiles	190000	14000	56000	56000	ug/Kg
BZ09610	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	22000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR GB (mg/kg) / Semivolatiles	ND	5500	2400	2400	ug/Kg
BZ09610	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR GB (mg/kg) / Semivolatiles	ND	5400	2400	2400	ug/Kg
BZ09610	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	40000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	33000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	68000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	85000	14000	1000	1000	ug/Kg
BZ09610	$8270-SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	190000	14000	56000	56000	ug/Kg
BZ09610	$8270-SMR	2,4-Dichlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	7000	4000	4000	ug/Kg
BZ09610	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	6000	1000	1000	ug/Kg
BZ09610	$8270-SMR	1,2-Dichlorobenzene	CT / RSR GB (mg/kg) / Volatiles	ND	5600	3100	3100	ug/Kg
BZ09610	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	16000	1100	500	500	mg/Kg
BZ09610	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	16000	1100	2500	2500	mg/Kg
BZ09611	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	5800	250	1000	1000	ug/Kg

Friday, October 13, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ09607 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ09611	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7300	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4700	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1800	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	7500	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3000	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	5800	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1800	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	7300	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4700	250	1000	1000	ug/Kg
BZ09611	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3900	250	1000	1000	ug/Kg
BZ09611	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	850	270	500	500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

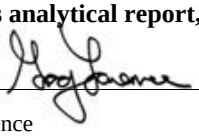
Laboratory Sample ID(s): BZ09607-BZ09611 ***Sampling Date(s):*** 9/26/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: ETPH Narration, ICP Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Friday, October 13, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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RCP Certification Report

October 13, 2017

SDG I.D.: GBZ09607

SDG Comments

Sample ID BZ09610
Due to the concentration of target analytes not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 10/03/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/03/17

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 10/12/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/12/17

BZ09610, BZ09611

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 405206 (BZ18923)

BZ09610, BZ09611

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

QC (Site Specific):

Batch 403712 (BZ09607)

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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

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RCP Certification Report

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SDG I.D.: GBZ09607

ETPH Narration

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

QC Batch 403180 (Samples: BZ09607): -----

The MS/MSD RPD exceeds the method criteria, therefore there may be variability in the reported result. (Ext. Petroleum H.C. (C9-C36))

Instrument:

AU-FID1 09/29/17-1 Jeff Bucko, Chemist 09/29/17

BZ09611

The initial calibration (ETPH912I) 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 09/28/17-1 Jeff Bucko, Chemist 09/28/17

BZ09608, BZ09609

The initial calibration (ETPH819I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 09/30/17-1 Jeff Bucko, Chemist 09/30/17

BZ09610

The initial calibration (ETPH819I) 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 09/28/17-1 Jeff Bucko, Chemist 09/28/17

BZ09607

The initial calibration (ETPH818I) 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 403180 (BZ08784)

BZ09607

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

Batch 403181 (BZ10102)

BZ09608, BZ09609, BZ09610, BZ09611

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

Mercury Narration

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

Instrument:

MERLIN 09/28/17 08:48 Mike Arsenault, Chemist 09/28/17

PHOENIX

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Certification Report

October 13, 2017

SDG I.D.: GBZ09607

Mercury Narration

BZ09608, BZ09610

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

MERLIN 09/29/17 07:46 Mike Arsenault, Chemist 09/29/17

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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 403099 (BZ09195)

BZ09608, BZ09610

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

Batch 403289 (BZ09274)

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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

ICP Metals Narration

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

QC Batch 403191 (Samples: BZ09607, BZ09608, BZ09609, BZ09610, BZ09611): -----

The Sample/Duplicate RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (Lead)

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SDG I.D.: GBZ09607

ICP Metals Narration

Instrument:

ARCOS 09/28/17 12:00 Laura Kinnin, Mike Arsenault, Chemist 09/28/17

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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

ARCOS 10/03/17 09:20 Laura Kinnin, Mike Arsenault, Chemist 10/03/17

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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

ARCOS 10/07/17 08:35 Laura Kinnin, Mike Arsenault, Chemist 10/07/17

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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

BLUE 09/27/17 10:09 Mike Arsenault, Chemist 09/27/17

BZ09608, BZ09610

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

QC (Batch Specific):

Batch 403104 (BZ01226)

BZ09608, BZ09610

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

Batch 403191 (BZ09330)

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

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SDG I.D.: GBZ09607

ICP Metals Narration

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

SVOA Narration

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

QC Batch 403196 (Samples: BZ09607, BZ09608, BZ09609, BZ09610, BZ09611): -----

The LCS/LCSD recovery is acceptable. One analyte in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Benzidine)

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

Instrument:

CHEM06 09/28/17-1 Damien Drobinski, Chemist 09/28/17

BZ09610

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

Initial Calibration Verification (CHEM06/SPLIT_0925):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 51% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Bis(2-chloroethoxy)methane 0.291 (0.3), Hexachlorobenzene 0.076 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/0928_02-SPLIT_0925):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 71%H (30%), 2-Nitroaniline 32%L (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 71%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.050 (0.1), Hexachlorobenzene 0.068 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 09/27/17-1 Damien Drobinski, Chemist 09/27/17

BZ09607, BZ09608, BZ09609, BZ09611

Initial Calibration Verification (CHEM29/SPLIT_0907):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 33% (20%), Naphthalene 22% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.086 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0927_04-SPLIT_0907):
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.

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RCP Certification Report

October 13, 2017

SDG I.D.: GBZ09607

SVOA Narration

The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.066 (0.1), Hexachlorobenzene 0.082 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 10/06/17-1 Damien Drobinski, Chemist 10/06/17

BZ09610

Initial Calibration Verification (CHEM29/SPLIT_0907):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: Naphthalene 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 (CHEM29/1006_02-SPLIT_0907):
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 (Site Specific):

Batch 403196 (BZ09608)

BZ09607, BZ09608, BZ09609, BZ09610, BZ09611

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(13%), 4,6-Dinitro-2-methylphenol(24%), Benzidine(<10%), Benzoic Acid(22%)
All MSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), 4,6-Dinitro-2-methylphenol(23%), Benzidine(<10%), Benzoic Acid(24%)
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

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

NY # 11301

RCP Certification Report

October 13, 2017

SDG I.D.: GBZ09607

VOA Narration

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

QC Batch 403775 (Samples: BZ09607): -----

The LCSD and Batch MS recovery are below the lower range but within the method criteria. The other QC is acceptable. A slight low bias is possible. (2-Hexanone)

The LCS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

QC Batch 403788 (Samples: BZ09608, BZ09609, BZ09610, BZ09611): -----

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (2,2-Dichloropropane)

Instrument:

CHEM14 09/29/17-2 Jane Li, Chemist 09/29/17

BZ09607

Initial Calibration Verification (CHEM14/VT-0928A):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromoform 29% (20%), trans-1,4-dichloro-2-butene 34% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0929_34-VT-0928A):
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.

CHEM26 09/29/17-1 Jane Li, Chemist 09/29/17

BZ09608, BZ09609, BZ09610, BZ09611

Initial Calibration Verification (CHEM26/VT-0926):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 33% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/0929_02-VT-0926):
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.

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

October 13, 2017

SDG I.D.: GBZ09607

VOA Narration

QC (Batch Specific):

Batch 403775 (BZ12384)

BZ09607

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(131%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(69%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

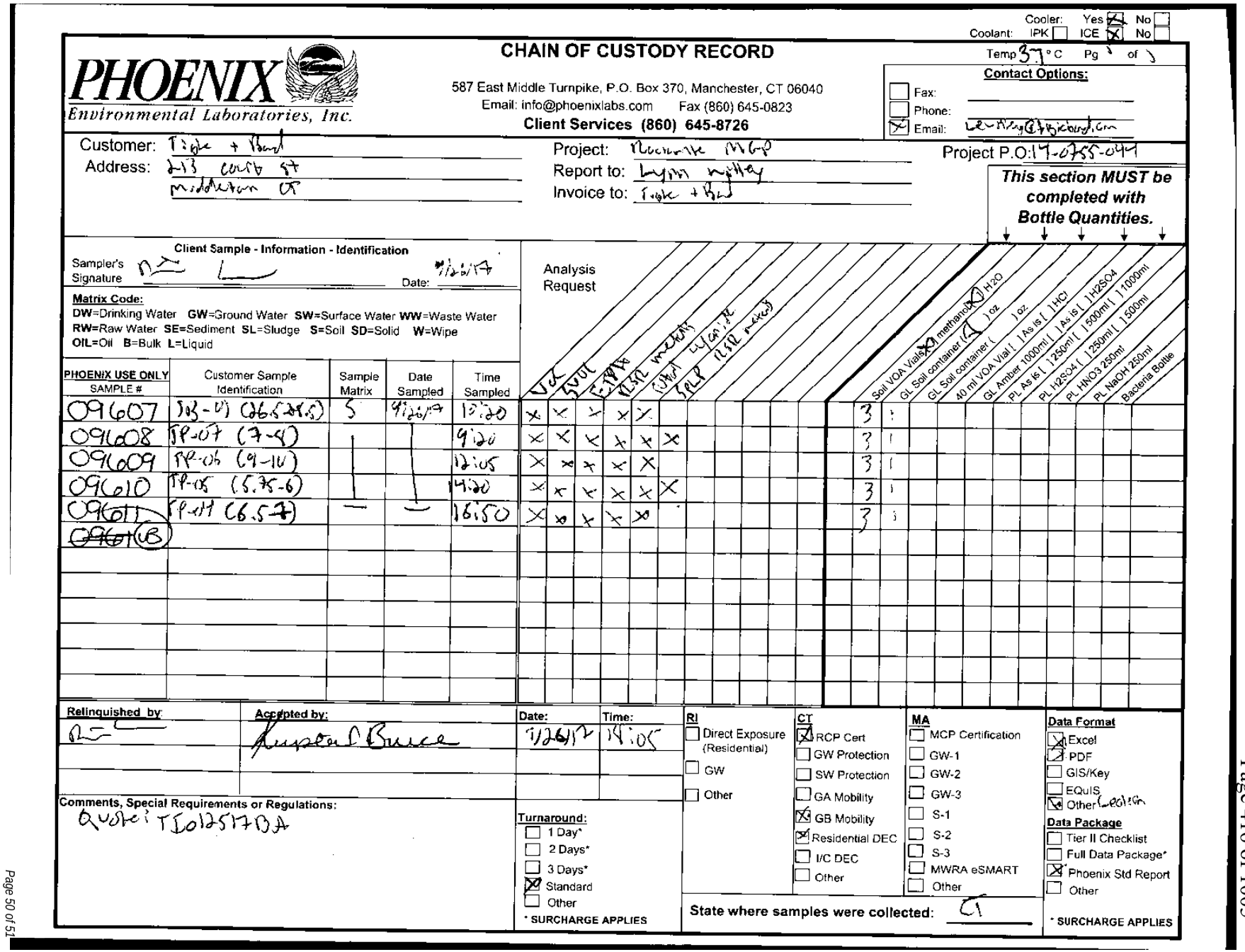
Batch 403788 (BZ11322)

BZ09608, BZ09609, BZ09610, BZ09611

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(137%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
The MSD is not reported for this batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

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



PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 3.7 °C Pg 1 of 1

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LeeMay@tpbicorp.com

Customer: Tighe + Bond
Address: 213 court st
middletown CT

Project: Rocky Hill MGP
Report to: Lynn Mayley
Invoice to: Tighe + Bond

Project P.O: 17-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/26/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	TCLP	RCRA metals	CyanideTR	TCLP RCRA metals	Soil VOA Vials (X methanol ☐ H2O)	GL Soil container ( ) 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
091607	SB-01 (26.5-28.5)	S	9/26/17	12:20	X	X	X	X	X		3	1								
091608	SP-07 (7-9)			9:20	X	X	X	X	X	X	3	1								
091609	SP-06 (9-10)			12:05	X	X	X	X	X		3	1								
091610	SP-05 (5.75-6)			14:20	X	X	X	X	X	X	3	1								
091611	SP-11 (6.5-7)			16:50	X	X	X	X	X		3	1								
~~091612~~ (B)																				

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9/26/17	19:05

Comments, Special Requirements or Regulations:
Quote: TB0125170A

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 Geotech

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

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

Contact Options:
Fax:
Phone:
Email:

Customer:
Address:

Project:
Report to:
Invoice to:

Project P.O.#

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature
Date:

Analysis Request

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

PHOENIX USE ONLY (SAMPLE #)	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
091607	SB-01 (26-28')	S	9/16/24	13:20
091608	SB-02 (3-4')			9:30
091609	SB-04 (9-10')			12:05
091610	SB-05 (5.5-6')			14:20
091611	SB-01 (6.5-7')			16:50

Relinquished by:
Date:
Time:

Accepted by:

Comments, Special Requirements or Regulations:

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

CT
☐ Direct Exposure (Residential)
☐ GW
☐ Other

☒ 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 Level IV

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

* SURCHARGE APPLIES

Page 49 of 49

PHOENIX
Environmental Laboratories, Inc.

Friday, October 06, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ12383 - BZ12384

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

October 06, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/29/17	15:40
Location Code:	TIGHE-DAS	Received by:	LB	09/29/17	17:23
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ12383
Phoenix ID: BZ12383

Project ID:
Client ID: SB-20 0-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		09/29/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/03/17	JJ/CKV	SW3545A
SPLP Extraction for Organics	Completed				09/29/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				10/02/17	P/D	SW3510C/SW3520C
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Acenaphthene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Acenaphthylene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Anthracene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Benz(a)anthracene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Benzo(a)pyrene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Benzo(b)fluoranthene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Benzo(ghi)perylene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Benzo(k)fluoranthene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Chrysene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Dibenz(a,h)anthracene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Fluoranthene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Fluorene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Indeno(1,2,3-cd)pyrene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Naphthalene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Phenanthrene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
Pyrene	ND	140	ug/Kg	10	10/03/17	PS	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	10	10/03/17	PS	30 - 130 %
% Nitrobenzene-d5	53		%	10	10/03/17	PS	30 - 130 %
% Terphenyl-d14	79		%	10	10/03/17	PS	30 - 130 %

Ver 1

Project ID:
Phoenix I.D.: BZ12383

Client ID: SB-20 0-5

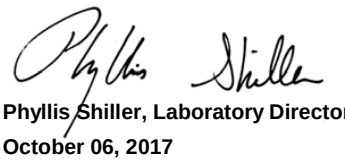
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	10/04/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	10/04/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	10/04/17	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	10/04/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	10/04/17	DD	30 - 130 %
% Nitrobenzene-d5	60		%	1	10/04/17	DD	30 - 130 %
% Terphenyl-d14	86		%	1	10/04/17	DD	30 - 130 %

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

Comments:

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

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



Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 06, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		09/29/17	11:00
Location Code:	TIGHE-DAS	Received by:	LB	09/29/17	17:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ12383
Phoenix ID: BZ12384

Project ID:
Client ID: SB-17 24-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Arsenic	1.56	0.73	mg/Kg	1	10/04/17	MA	SW6010C
Barium	51.0	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Beryllium	0.41	0.29	mg/Kg	1	10/04/17	MA	SW6010C
Cadmium	< 0.37	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Chromium	18.3	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Copper	22.2	0.37	mg/kg	1	10/04/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/03/17	RS	SW7471B
Nickel	12.6	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Lead	3.36	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	10/04/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	10/04/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	10/04/17	MA	SW6010C
Vanadium	28.4	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Zinc	34.8	0.37	mg/Kg	1	10/04/17	MA	SW6010C
Percent Solid	84		%		09/29/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	10/03/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/03/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/02/17	CC/VCK	SW3545A
Mercury Digestion	Completed				10/03/17	W/W	SW7471B
Total Metals Digest	Completed				10/02/17	AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	60	mg/Kg	1	10/03/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	10/03/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	10/03/17	JRB	50 - 150 %

Ver 1

Project ID:
Client ID: SB-17 24-26

Phoenix I.D.: BZ12384

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	09/30/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
2-Chlorotoluene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	09/30/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
4-Chlorotoluene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	09/30/17	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	09/30/17	JLI	SW8260C
Acrylonitrile	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Benzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Bromobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Bromochloromethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Bromodichloromethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Bromoform	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Bromomethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon Disulfide	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Carbon tetrachloride	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Chlorobenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Chloroform	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Chloromethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	09/30/17	JLI	SW8260C
Dibromomethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Ethylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Isopropylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	09/30/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	09/30/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	09/30/17	JLI	SW8260C
Naphthalene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
n-Butylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
n-Propylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
o-Xylene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
sec-Butylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Styrene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
tert-Butylbenzene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrachloroethene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	09/30/17	JLI	SW8260C
Toluene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Total Xylenes	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	09/30/17	JLI	SW8260C
Trichloroethene	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
Vinyl chloride	ND	6.0	ug/Kg	1	09/30/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	09/30/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	09/30/17	JLI	70 - 130 %
% Dibromofluoromethane	91		%	1	09/30/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	09/30/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,4-Dinitrophenol	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
2-Nitroaniline	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	10/03/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
3-Nitroaniline	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
4-Nitroaniline	ND	620	ug/Kg	1	10/03/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Aniline	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/03/17	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Benzoic acid	ND	770	ug/Kg	1	10/03/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Carbazole	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Di-n-butylphthalate	ND	770	ug/Kg	1	10/03/17	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/03/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/03/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
Pentachloronitrobenzene	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	10/03/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Phenol	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	10/03/17	DD	SW8270D
Pyridine	ND	390	ug/Kg	1	10/03/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	71		%	1	10/03/17	DD	30 - 130 %
% 2-Fluorobiphenyl	54		%	1	10/03/17	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	10/03/17	DD	30 - 130 %
% Nitrobenzene-d5	52		%	1	10/03/17	DD	30 - 130 %
% Phenol-d5	48		%	1	10/03/17	DD	30 - 130 %
% Terphenyl-d14	55		%	1	10/03/17	DD	30 - 130 %
Field Extraction	Completed				09/29/17		SW5035A

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 06, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

October 06, 2017

QA/QC Data

SDG I.D.: GBZ12383

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 403894 (mg/kg), QC Sample No: BZ11345 (BZ12384)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	100	90.5	10.0	103			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 403806 (mg/kg), QC Sample No: BZ12384 (BZ12384)													
ICP Metals - Soil													
Antimony	BRL	3.5	<3.7	<3.7	NC	117			103			75 - 125	30
Arsenic	BRL	0.70	1.56	0.93	NC	89.4			90.0			75 - 125	30
Barium	BRL	0.35	51.0	56.8	10.8	88.8			112			75 - 125	30
Beryllium	BRL	0.28	0.41	0.41	NC	93.8			95.5			75 - 125	30
Cadmium	BRL	0.35	<0.37	<0.37	NC	89.3			95.0			75 - 125	30
Chromium	BRL	0.35	18.3	16.5	10.3	89.8			94.2			75 - 125	30
Copper	BRL	0.35	22.2	23.9	7.40	96.2			105			75 - 125	30
Lead	BRL	0.35	3.36	3.63	7.70	104			96.4			75 - 125	30
Nickel	BRL	0.35	12.6	12.2	3.20	91.7			94.1			75 - 125	30
Selenium	BRL	1.4	<1.5	<1.5	NC	107			85.9			75 - 125	30
Silver	BRL	0.35	<0.37	<0.37	NC	108			116			75 - 125	30
Thallium	BRL	3.2	<3.3	<3.3	NC	87.7			97.5			75 - 125	30
Vanadium	BRL	0.35	28.4	26.5	6.90	96.2			95.3			75 - 125	30
Zinc	BRL	0.35	34.8	35.1	0.90	111			92.2			75 - 125	30

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SDG I.D.: GBZ12383

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 403712 (mg/Kg), QC Sample No: BZ09607 50X (BZ12384)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	95.1			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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SDG I.D.: GBZ12383

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 403775 (ug/kg), QC Sample No: BZ12384 (BZ12384)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	117	100	15.7	96	111	14.5	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	113	97	15.2	93	108	14.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	115	93	21.2	88	104	16.7	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	112	92	19.6	87	102	15.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0	115	96	18.0	93	108	14.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	109	93	15.8	90	105	15.4	70 - 130	30	
1,1-Dichloropropene	ND	5.0	113	96	16.3	93	109	15.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	106	89	17.4	81	90	10.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	107	86	21.8	80	95	17.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	100	84	17.4	76	82	7.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	110	90	20.0	88	103	15.7	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	111	96	14.5	80	99	21.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	109	91	18.0	88	100	12.8	70 - 130	30	
1,2-Dichloroethane	ND	5.0	112	93	18.5	89	103	14.6	70 - 130	30	
1,2-Dichloropropane	ND	5.0	113	96	16.3	93	106	13.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	111	92	18.7	90	104	14.4	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	110	90	20.0	88	101	13.8	70 - 130	30	
1,3-Dichloropropane	ND	5.0	110	90	20.0	87	103	16.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	108	89	19.3	85	98	14.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	100	16.5	86	103	18.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	110	92	17.8	91	106	15.2	70 - 130	30	
2-Hexanone	ND	25	85	69	20.8	67	75	11.3	70 - 130	30	l,m
2-Isopropyltoluene	ND	5.0	108	90	18.2	89	103	14.6	70 - 130	30	
4-Chlorotoluene	ND	5.0	112	91	20.7	88	104	16.7	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	76	18.0	68	78	13.7	70 - 130	30	m
Acetone	ND	10	82	70	15.8	46	55	17.8	70 - 130	30	m
Acrylonitrile	ND	5.0	101	88	13.8	74	85	13.8	70 - 130	30	
Benzene	ND	1.0	112	95	16.4	93	108	14.9	70 - 130	30	
Bromobenzene	ND	5.0	112	93	18.5	90	107	17.3	70 - 130	30	
Bromochloromethane	ND	5.0	109	91	18.0	85	98	14.2	70 - 130	30	
Bromodichloromethane	ND	5.0	118	100	16.5	93	110	16.7	70 - 130	30	
Bromoform	ND	5.0	116	98	16.8	84	100	17.4	70 - 130	30	
Bromomethane	ND	5.0	125	101	21.2	94	114	19.2	70 - 130	30	
Carbon Disulfide	ND	5.0	120	101	17.2	90	110	20.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	119	99	18.3	96	112	15.4	70 - 130	30	
Chlorobenzene	ND	5.0	110	92	17.8	90	105	15.4	70 - 130	30	
Chloroethane	ND	5.0	109	94	14.8	89	105	16.5	70 - 130	30	
Chloroform	ND	5.0	110	96	13.6	93	106	13.1	70 - 130	30	
Chloromethane	ND	5.0	104	89	15.5	87	94	7.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	113	95	17.3	92	106	14.1	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ12383

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	121	102	17.0	96	110	13.6	70 - 130	30	
Dibromochloromethane	ND	3.0	126	103	20.1	96	114	17.1	70 - 130	30	
Dibromomethane	ND	5.0	112	93	18.5	88	101	13.8	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	131	112	15.6	96	115	18.0	70 - 130	30	I
Ethylbenzene	ND	1.0	110	91	18.9	92	106	14.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	110	93	16.7	86	97	12.0	70 - 130	30	
Isopropylbenzene	ND	1.0	114	95	18.2	95	111	15.5	70 - 130	30	
m&p-Xylene	ND	2.0	108	90	18.2	89	103	14.6	70 - 130	30	
Methyl ethyl ketone	ND	5.0	89	78	13.2	62	74	17.6	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	112	96	15.4	87	102	15.9	70 - 130	30	
Methylene chloride	ND	5.0	104	88	16.7	83	98	16.6	70 - 130	30	
Naphthalene	ND	5.0	115	97	17.0	88	97	9.7	70 - 130	30	
n-Butylbenzene	ND	1.0	110	91	18.9	87	97	10.9	70 - 130	30	
n-Propylbenzene	ND	1.0	110	91	18.9	90	103	13.5	70 - 130	30	
o-Xylene	ND	2.0	113	94	18.4	92	106	14.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	112	95	16.4	91	105	14.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	97	17.8	95	112	16.4	70 - 130	30	
Styrene	ND	5.0	111	92	18.7	90	105	15.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	114	95	18.2	95	111	15.5	70 - 130	30	
Tetrachloroethene	ND	5.0	112	94	17.5	91	105	14.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	94	79	17.3	68	78	13.7	70 - 130	30	m
Toluene	ND	1.0	113	94	18.4	94	109	14.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	109	92	16.9	90	102	12.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	116	97	17.8	88	100	12.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	119	98	19.4	82	95	14.7	70 - 130	30	
Trichloroethene	ND	5.0	114	96	17.1	92	108	16.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	102	87	15.9	82	96	15.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	89	17.4	84	96	13.3	70 - 130	30	
Vinyl chloride	ND	5.0	109	92	16.9	87	102	15.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	102	101	1.0	100	98	2.0	70 - 130	30	
% Bromofluorobenzene	101	%	98	101	3.0	97	99	2.0	70 - 130	30	
% Dibromofluoromethane	90	%	101	102	1.0	104	100	3.9	70 - 130	30	
% Toluene-d8	97	%	99	100	1.0	102	102	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 403798 (mg/Kg), QC Sample No: BZ12385 (BZ12384)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	79	91	14.1	93	80	15.0	60 - 120	30	
% n-Pentacosane	62	%	74	85	13.8	79	73	7.9	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 403813 (ug/L), QC Sample No: BZ12493 (BZ12383)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	63	60	4.9				30 - 130	20	
Acenaphthene	ND	0.05	78	76	2.6				30 - 130	20	
Acenaphthylene	ND	0.04	74	71	4.1				30 - 130	20	
Anthracene	ND	0.02	87	84	3.5				30 - 130	20	
Benz(a)anthracene	ND	0.02	82	81	1.2				30 - 130	20	
Benzo(a)pyrene	ND	0.02	82	77	6.3				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	97	92	5.3				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	61	63	3.2				30 - 130	20	

QA/QC Data

SDG I.D.: GBZ12383

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(k)fluoranthene	ND	0.02	86	85	1.2				30 - 130	20	
Chrysene	ND	0.02	83	81	2.4				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	80	74	7.8				30 - 130	20	
Fluoranthene	ND	0.04	84	85	1.2				30 - 130	20	
Fluorene	ND	0.05	84	80	4.9				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	72	69	4.3				30 - 130	20	
Naphthalene	ND	0.05	57	51	11.1				30 - 130	20	
Phenanthrene	ND	0.05	77	76	1.3				30 - 130	20	
Pyrene	ND	0.02	87	89	2.3				30 - 130	20	
% 2-Fluorobiphenyl	65	%	71	68	4.3				30 - 130	20	
% Nitrobenzene-d5	56	%	53	48	9.9				30 - 130	20	
% Terphenyl-d14	80	%	89	90	1.1				30 - 130	20	

Comment:

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

QA/QC Batch 403980 (ug/kg), QC Sample No: BZ12600 (BZ12384)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	53	45	16.3				30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	49	40	20.2				30 - 130	30	
1,2-Dichlorobenzene	ND	180	47	39	18.6				30 - 130	30	
1,2-Diphenylhydrazine	ND	230	64	53	18.8				30 - 130	30	
1,3-Dichlorobenzene	ND	230	45	37	19.5				30 - 130	30	
1,4-Dichlorobenzene	ND	230	47	39	18.6				30 - 130	30	
2,4,5-Trichlorophenol	ND	230	53	44	18.6				30 - 130	30	
2,4,6-Trichlorophenol	ND	130	57	45	23.5				30 - 130	30	
2,4-Dichlorophenol	ND	130	58	48	18.9				30 - 130	30	
2,4-Dimethylphenol	ND	230	62	53	15.7				30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC				30 - 130	30	I
2,4-Dinitrotoluene	ND	130	63	51	21.1				30 - 130	30	
2,6-Dinitrotoluene	ND	130	62	52	17.5				30 - 130	30	
2-Chloronaphthalene	ND	230	55	46	17.8				30 - 130	30	
2-Chlorophenol	ND	230	53	43	20.8				30 - 130	30	
2-Methylnaphthalene	ND	230	53	45	16.3				30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	61	50	19.8				30 - 130	30	
2-Nitroaniline	ND	330	99	78	23.7				30 - 130	30	
2-Nitrophenol	ND	230	66	52	23.7				30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	61	51	17.9				30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	72	63	13.3				30 - 130	30	
3-Nitroaniline	ND	330	71	60	16.8				30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC				30 - 130	30	I
4-Bromophenyl phenyl ether	ND	230	56	47	17.5				30 - 130	30	
4-Chloro-3-methylphenol	ND	230	65	54	18.5				30 - 130	30	
4-Chloroaniline	ND	230	70	59	17.1				30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	62	52	17.5				30 - 130	30	
4-Nitroaniline	ND	230	70	59	17.1				30 - 130	30	
4-Nitrophenol	ND	230	68	55	21.1				30 - 130	30	
Acenaphthene	ND	230	62	52	17.5				30 - 130	30	
Acenaphthylene	ND	130	56	47	17.5				30 - 130	30	
Acetophenone	ND	230	54	45	18.2				30 - 130	30	
Aniline	ND	330	47	40	16.1				30 - 130	30	
Anthracene	ND	230	62	52	17.5				30 - 130	30	
Benz(a)anthracene	ND	230	61	51	17.9				30 - 130	30	

QA/QC Data

SDG I.D.: GBZ12383

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzidine	ND	330	39	24	47.6				30 - 130	30	l,r
Benzo(a)pyrene	ND	130	58	47	21.0				30 - 130	30	
Benzo(b)fluoranthene	ND	160	60	51	16.2				30 - 130	30	
Benzo(ghi)perylene	ND	230	57	43	28.0				30 - 130	30	
Benzo(k)fluoranthene	ND	230	61	50	19.8				30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC				30 - 130	30	l
Benzyl butyl phthalate	ND	230	68	55	21.1				30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	57	48	17.1				30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	47	38	21.2				30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	52	43	18.9				30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	71	58	20.2				30 - 130	30	
Carbazole	ND	230	63	52	19.1				30 - 130	30	
Chrysene	ND	230	63	52	19.1				30 - 130	30	
Dibenz(a,h)anthracene	ND	130	63	48	27.0				30 - 130	30	
Dibenzofuran	ND	230	60	50	18.2				30 - 130	30	
Diethyl phthalate	ND	230	63	52	19.1				30 - 130	30	
Dimethylphthalate	ND	230	60	50	18.2				30 - 130	30	
Di-n-butylphthalate	ND	670	66	54	20.0				30 - 130	30	
Di-n-octylphthalate	ND	230	68	54	23.0				30 - 130	30	
Fluoranthene	ND	230	61	50	19.8				30 - 130	30	
Fluorene	ND	230	62	53	15.7				30 - 130	30	
Hexachlorobenzene	ND	130	64	53	18.8				30 - 130	30	
Hexachlorobutadiene	ND	230	49	41	17.8				30 - 130	30	
Hexachlorocyclopentadiene	ND	230	63	53	17.2				30 - 130	30	
Hexachloroethane	ND	130	48	39	20.7				30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	58	44	27.5				30 - 130	30	
Isophorone	ND	130	55	46	17.8				30 - 130	30	
Naphthalene	ND	230	54	45	18.2				30 - 130	30	
Nitrobenzene	ND	130	60	50	18.2				30 - 130	30	
N-Nitrosodimethylamine	ND	230	52	41	23.7				30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	61	51	17.9				30 - 130	30	
N-Nitrosodiphenylamine	ND	130	63	53	17.2				30 - 130	30	
Pentachloronitrobenzene	ND	230	66	52	23.7				30 - 130	30	
Pentachlorophenol	ND	230	<10	<10	NC				30 - 130	30	l
Phenanthrene	ND	130	61	49	21.8				30 - 130	30	
Phenol	ND	230	55	46	17.8				30 - 130	30	
Pyrene	ND	230	61	51	17.9				30 - 130	30	
Pyridine	ND	230	38	31	20.3				30 - 130	30	
% 2,4,6-Tribromophenol	61	%	68	53	24.8				30 - 130	30	
% 2-Fluorobiphenyl	51	%	55	45	20.0				30 - 130	30	
% 2-Fluorophenol	36	%	48	39	20.7				30 - 130	30	
% Nitrobenzene-d5	48	%	58	47	21.0				30 - 130	30	
% Phenol-d5	44	%	55	45	20.0				30 - 130	30	
% Terphenyl-d14	58	%	61	49	21.8				30 - 130	30	

Comment:

Only a Blank, LCS and LCSD are reported for this Batch.

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

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

QA/QC Data

SDG I.D.: GBZ12383

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

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

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

Phyllis Shiller, Laboratory Director
October 06, 2017

Friday, October 06, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ12383 - TIGHE-DAS

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 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:*** Tighe & Bond

Project Location: SB-20 0-5 ***Project Number:***

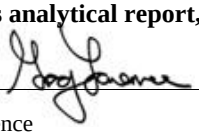
Laboratory Sample ID(s): BZ12383, BZ12384 ***Sampling Date(s):*** 9/29/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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 CTDEP Reasonable Confidence Protocol documents achieved?**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Friday, October 06, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 06, 2017

SDG I.D.: GBZ12383

SDG Comments

8270 Semi-volatile Organics: BZ12383
Only the PAH constituents are reported as requested on the chain-of-custody. In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via 8270 selective ion monitoring (SIM).

Cyanide Narration

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

Instrument:

LACHAT 10/03/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/03/17

BZ12384

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 403712 (BZ09607)

BZ12384

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

ETPH Narration

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

Instrument:

AU-FID21 10/03/17-1 Jeff Bucko, Chemist 10/03/17

BZ12384

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

QC (Batch Specific):

Batch 403798 (BZ12385)

BZ12384

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.

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October 06, 2017

SDG I.D.: GBZ12383

Mercury Narration

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

Instrument:

MERLIN 10/03/17 09:19 Rick Schweitzer, Chemist 10/03/17

BZ12384

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 403894 (BZ11345)

BZ12384

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

ICP Metals Narration

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

Instrument:

ARCOS 10/03/17 09:20 Mike Arsenault, Chemist 10/03/17

BZ12384

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

ARCOS 10/04/17 07:04 Mike Arsenault, Chemist 10/04/17

BZ12384

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: ICSAB 10/04/17 18:45: Silver 127% (80-120)

PHOENIX

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Certification Report

October 06, 2017

SDG I.D.: GBZ12383

ICP Metals Narration

QC (Site Specific):

Batch 403806 (BZ12384)

BZ12384

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

SVOA Narration

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

Instrument:

CHEM29 10/03/17-1 Damien Drobinski, Chemist 10/03/17

BZ12384

Initial Calibration Verification (CHEM29/SPLIT_0907):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 33% (20%), Naphthalene 22% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.086 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/1003_04-SPLIT_0907):
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 73%L (30%)
The following compounds did not meet maximum % deviations: Pentachlorophenol 73%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.059 (0.1), Acenaphthene 0.859 (0.9), Hexachlorobenzene 0.077 (0.1), Pentachlorophenol 0.042 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 403980 (BZ12600)

BZ12384

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(24%), Benzoic Acid(<10%), Pentachlorophenol(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: Benzidine(47.6%)
Only a Blank, LCS and LCSD are reported for this Batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

Instrument:

CHEM07 10/03/17-2 Damien Drobinski, Chemist 10/03/17

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RCP Certification Report

October 06, 2017

SDG I.D.: GBZ12383

SVOASIM Narration

BZ12383

Initial Calibration Verification (CHEM07/BNSIM_0926):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1003_30-BNSIM_0926):
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.

CHEM25 10/03/17-2 Harry Mullin, Chemist 10/03/17

BZ12383

Initial Calibration Verification (CHEM25/pah_sim1003):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Benzo(a)pyrene 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 (CHEM25/1003_19-pah_sim1003):
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 403813 (BZ12493)

BZ12383

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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 09/29/17-2 Jane Li, Chemist 09/29/17

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

October 06, 2017

SDG I.D.: GBZ12383

VOA Narration

BZ12384

Initial Calibration Verification (CHEM14/VT-0928A):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromoform 29% (20%), trans-1,4-dichloro-2-butene 34% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0929_34-VT-0928A):
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 (Site Specific):

Batch 403775 (BZ12384)

BZ12384

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(131%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(69%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(67%), 4-Methyl-2-pentanone(68%), Acetone(46%), Methyl ethyl ketone(62%), Tetrahydrofuran (THF)(68%)
All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(55%)
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.3C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 3 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwing@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Tighe + Bond

Project P.O:

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 9/24/17

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	TCLP	RCP 8 Pkg	VOC	SVOC	Extra TCLP Metals	Total Cyanide	Soil VOA Vials [ ]methanol [ ]H2O	GL Soil container ( ) 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
12383	SB-20 (0-6')	S	9/24/17	15:40	X	X	X					3	1							
12384	SB-17 (24-26')	S	9/24/17	11:40			X	X	X	X	X	3	1							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Paradise	9/24/17	17:2[illegible]

Comments, Special Requirements or Regulations:
Anchor: TF0125171[illegible]

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 EQuIS match

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

PHOENIX
Environmental Laboratories, Inc.

Wednesday, October 11, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ13432 - BZ13434

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

October 11, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/02/17	10:10
Location Code:	TIGHE-DAS	Received by:	LB	10/03/17	14:18
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ13432
Phoenix ID: BZ13432

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Arsenic	< 0.65	0.65	mg/Kg	1	10/05/17	EK	SW6010C
Barium	19.5	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Beryllium	< 0.26	0.26	mg/Kg	1	10/05/17	EK	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Chromium	11.2	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Copper	6.05	0.32	mg/kg	1	10/05/17	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/04/17	RS	SW7471B
Nickel	3.81	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Lead	2.04	0.32	mg/Kg	1	10/05/17	EK	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	10/05/17	EK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	10/05/17	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/05/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/05/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/04/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/05/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	10/05/17	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Phoenix I.D.: BZ13432

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
SPLP Metals Digestion	Completed				10/04/17	W/W	SW3005A	
Vanadium	10.7	0.32	mg/Kg	1	10/05/17	EK	SW6010C	
Zinc	17.8	0.32	mg/Kg	1	10/05/17	EK	SW6010C	B*
Percent Solid	94		%		10/03/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	10/04/17	EG	SW9012B	
Soil Extraction for SVOA	Completed				10/03/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/04/17	AA/VCK	SW3545A	
Mercury Digestion	Completed				10/04/17	W/W	SW7471B	
SPLP Digestion Mercury	Completed				10/04/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				10/03/17	W	SW1312	
Total Metals Digest	Completed				10/03/17	AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	10/05/17	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	1	10/05/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	78		%	1	10/05/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloroethene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloropropene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dibromoethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichloropropane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3-Dichloropropane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
2,2-Dichloropropane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Chlorotoluene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Hexanone	ND	21	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Isopropyltoluene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
4-Chlorotoluene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	21	ug/Kg	1	10/04/17	JLI	SW8260C	
Acetone	ND	210	ug/Kg	1	10/04/17	JLI	SW8260C	
Acrylonitrile	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
Benzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
Bromobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	
Bromochloromethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Phoenix I.D.: BZ13432

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Bromoform	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Bromomethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Carbon Disulfide	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Carbon tetrachloride	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Chlorobenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Chloroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Chloroform	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Chloromethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	10/04/17	JLI	SW8260C
Dibromomethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Ethylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Isopropylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
m&p-Xylene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	10/04/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.5	ug/Kg	1	10/04/17	JLI	SW8260C
Methylene chloride	ND	8.5	ug/Kg	1	10/04/17	JLI	SW8260C
Naphthalene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
n-Butylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
n-Propylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
o-Xylene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
sec-Butylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Styrene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
tert-Butylbenzene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Tetrachloroethene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.5	ug/Kg	1	10/04/17	JLI	SW8260C
Toluene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Total Xylenes	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.5	ug/Kg	1	10/04/17	JLI	SW8260C
Trichloroethene	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
Vinyl chloride	ND	4.3	ug/Kg	1	10/04/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	10/04/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	10/04/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	10/04/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/04/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Phoenix I.D.: BZ13432

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	10/04/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Aniline	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Benzoic acid	ND	700	ug/Kg	1	10/04/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Carbazole	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/04/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Phoenix I.D.: BZ13432

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	700	ug/Kg	1	10/04/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	10/04/17	DD	SW8270D
Pyridine	ND	350	ug/Kg	1	10/04/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	72		%	1	10/04/17	DD	30 - 130 %
% 2-Fluorobiphenyl	61		%	1	10/04/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	10/04/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	10/04/17	DD	30 - 130 %
% Phenol-d5	63		%	1	10/04/17	DD	30 - 130 %
% Terphenyl-d14	62		%	1	10/04/17	DD	30 - 130 %
Field Extraction	Completed				10/02/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-13 (14-15)

Phoenix I.D.: BZ13432

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

B* = Present in blank, a bias is possible.

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.
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Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/02/17	11:00
Location Code:	TIGHE-DAS	Received by:	LB	10/03/17	14:18
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ13432
Phoenix ID: BZ13433

Project ID: ROCKVILLE MGP
Client ID: SB-13 (25.5-27.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.33	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Arsenic	< 0.66	0.66	mg/Kg	1	10/05/17	EK	SW6010C	
Barium	29.5	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Beryllium	< 0.26	0.26	mg/Kg	1	10/05/17	EK	SW6010C	
Cadmium	< 0.33	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Chromium	10.2	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Copper	6.01	0.33	mg/kg	1	10/05/17	EK	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	10/04/17	RS	SW7471B	
Nickel	6.50	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Lead	0.64	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Antimony	< 3.3	3.3	mg/Kg	1	10/05/17	EK	SW6010C	
Selenium	< 1.3	1.3	mg/Kg	1	10/05/17	EK	SW6010C	
Thallium	< 3.0	3.0	mg/Kg	1	10/05/17	EK	SW6010C	
Vanadium	16.1	0.33	mg/Kg	1	10/05/17	EK	SW6010C	
Zinc	14.8	0.33	mg/Kg	1	10/05/17	EK	SW6010C	B*
Percent Solid	91		%		10/03/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	1.72	0.50	mg/Kg	1	10/04/17	EG	SW9012B	
Soil Extraction for SVOA	Completed				10/03/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/04/17	AA/VCK	SW3545A	
Mercury Digestion	Completed				10/04/17	W/W	SW7471B	
Total Metals Digest	Completed				10/03/17	AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	25000	5800	mg/Kg	50	10/06/17	JRB	CTETPH 8015D	
Identification	**		mg/Kg	50	10/06/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	Diluted Out		%	50	10/06/17	JRB	50 - 150 %	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (25.5-27.5)

Phoenix I.D.: BZ13433

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	40000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1-Dichloroethane	ND	14000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1-Dichloroethene	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
1,1-Dichloropropene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	14000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2,4-Trimethylbenzene	300000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2-Dibromoethane	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2-Dichloroethane	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
1,2-Dichloropropane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,3,5-Trimethylbenzene	110000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,3-Dichloropropane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	15000	ug/Kg	10000	10/04/17	JLI	SW8260C
2,2-Dichloropropane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
2-Chlorotoluene	ND	28000	ug/Kg	10000	10/04/17	JLI	SW8260C
2-Hexanone	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
2-Isopropyltoluene	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
4-Chlorotoluene	ND	28000	ug/Kg	10000	10/04/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Acetone	ND	140000	ug/Kg	10000	10/04/17	JLI	SW8260C
Acrylonitrile	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
Benzene	100000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Bromobenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Bromochloromethane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Bromodichloromethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Bromoform	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Bromomethane	ND	25000	ug/Kg	10000	10/04/17	JLI	SW8260C
Carbon Disulfide	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Carbon tetrachloride	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Chlorobenzene	ND	20000	ug/Kg	10000	10/04/17	JLI	SW8260C
Chloroethane	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
Chloroform	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
Chloromethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	14000	ug/Kg	10000	10/04/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Dibromochloromethane	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Dibromomethane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Dichlorodifluoromethane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Ethylbenzene	240000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Hexachlorobutadiene	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
Isopropylbenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (25.5-27.5)

Phoenix I.D.: BZ13433

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	840000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	80000	ug/Kg	10000	10/04/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	20000	ug/Kg	10000	10/04/17	JLI	SW8260C
Methylene chloride	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Naphthalene	8000000	620000	ug/Kg	100000	10/05/17	JLI	SW8260C
n-Butylbenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
n-Propylbenzene	40000	37000	ug/Kg	10000	10/04/17	JLI	SW8260C
o-Xylene	320000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
p-Isopropyltoluene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
sec-Butylbenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Styrene	750000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
tert-Butylbenzene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Tetrachloroethene	ND	12000	ug/Kg	10000	10/04/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	31000	ug/Kg	10000	10/04/17	JLI	SW8260C
Toluene	800000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Total Xylenes	1160000	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	20000	ug/Kg	10000	10/04/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	120000	ug/Kg	10000	10/04/17	JLI	SW8260C
Trichloroethene	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
Trichlorofluoromethane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	62000	ug/Kg	10000	10/04/17	JLI	SW8260C
Vinyl chloride	ND	6200	ug/Kg	10000	10/04/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	10000	10/04/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	10000	10/04/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	10000	10/04/17	JLI	70 - 130 %
% Toluene-d8	100		%	10000	10/04/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	51000	ug/Kg	200	10/04/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	64000	ug/Kg	200	10/04/17	DD	SW8270D
1,2-Dichlorobenzene	ND	60000	ug/Kg	200	10/04/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	85000	ug/Kg	200	10/04/17	DD	SW8270D
1,3-Dichlorobenzene	ND	120000	ug/Kg	200	10/04/17	DD	SW8270D
1,4-Dichlorobenzene	ND	63000	ug/Kg	200	10/04/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	140000	ug/Kg	200	10/04/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	68000	ug/Kg	200	10/04/17	DD	SW8270D
2,4-Dichlorophenol	ND	75000	ug/Kg	200	10/04/17	DD	SW8270D
2,4-Dimethylphenol	ND	53000	ug/Kg	200	10/04/17	DD	SW8270D
2,4-Dinitrophenol	ND	110000	ug/Kg	200	10/04/17	DD	SW8270D
2,4-Dinitrotoluene	ND	84000	ug/Kg	200	10/04/17	DD	SW8270D
2,6-Dinitrotoluene	ND	67000	ug/Kg	200	10/04/17	DD	SW8270D
2-Chloronaphthalene	ND	110000	ug/Kg	200	10/04/17	DD	SW8270D
2-Chlorophenol	ND	60000	ug/Kg	200	10/04/17	DD	SW8270D
2-Methylnaphthalene	1500000	150000	ug/Kg	200	10/04/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	100000	ug/Kg	200	10/04/17	DD	SW8270D
2-Nitroaniline	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
2-Nitrophenol	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	210000	ug/Kg	200	10/04/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-13 (25.5-27.5)

Phoenix I.D.: BZ13433

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	100000	ug/Kg	200	10/04/17	DD	SW8270D
3-Nitroaniline	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	110000	ug/Kg	200	10/04/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	210000	ug/Kg	200	10/04/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	140000	ug/Kg	200	10/04/17	DD	SW8270D
4-Chloroaniline	ND	99000	ug/Kg	200	10/04/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
4-Nitroaniline	ND	71000	ug/Kg	200	10/04/17	DD	SW8270D
4-Nitrophenol	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Acenaphthene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Acenaphthylene	1000000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Acetophenone	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Aniline	ND	85000	ug/Kg	200	10/04/17	DD	SW8270D
Anthracene	470000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benz(a)anthracene	280000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benzidine	ND	85000	ug/Kg	200	10/04/17	DD	SW8270D
Benzo(a)pyrene	220000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benzo(b)fluoranthene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benzo(ghi)perylene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benzo(k)fluoranthene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Benzoic acid	ND	200000	ug/Kg	200	10/04/17	DD	SW8270D
Benzyl butyl phthalate	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	59000	ug/Kg	200	10/04/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	57000	ug/Kg	200	10/04/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	59000	ug/Kg	200	10/04/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	61000	ug/Kg	200	10/04/17	DD	SW8270D
Carbazole	ND	85000	ug/Kg	200	10/04/17	DD	SW8270D
Chrysene	250000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	69000	ug/Kg	200	10/04/17	DD	SW8270D
Dibenzofuran	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Diethyl phthalate	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Dimethylphthalate	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Di-n-butylphthalate	ND	210000	ug/Kg	200	10/04/17	DD	SW8270D
Di-n-octylphthalate	ND	55000	ug/Kg	200	10/04/17	DD	SW8270D
Fluoranthene	600000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Fluorene	590000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Hexachlorobenzene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Hexachlorobutadiene	ND	77000	ug/Kg	200	10/04/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	65000	ug/Kg	200	10/04/17	DD	SW8270D
Hexachloroethane	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Isophorone	ND	60000	ug/Kg	200	10/04/17	DD	SW8270D
Naphthalene	5200000	740000	ug/Kg	1000	10/05/17	DD	SW8270D
Nitrobenzene	ND	74000	ug/Kg	200	10/04/17	DD	SW8270D
N-Nitrosodimethylamine	ND	60000	ug/Kg	200	10/04/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	69000	ug/Kg	200	10/04/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	82000	ug/Kg	200	10/04/17	DD	SW8270D
Pentachloronitrobenzene	ND	64000	ug/Kg	200	10/04/17	DD	SW8270D
Pentachlorophenol	ND	80000	ug/Kg	200	10/04/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-13 (25.5-27.5)

Phoenix I.D.: BZ13433

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	1600000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Phenol	ND	150000	ug/Kg	200	10/04/17	DD	SW8270D
Pyrene	830000	150000	ug/Kg	200	10/04/17	DD	SW8270D
Pyridine	ND	52000	ug/Kg	200	10/04/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	200	10/04/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	200	10/04/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	200	10/04/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	200	10/04/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	200	10/04/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	200	10/04/17	DD	30 - 130 %
Field Extraction	Completed				10/02/17		SW5035A

B* = Present in blank, a bias is possible.

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

Comments:

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

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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.

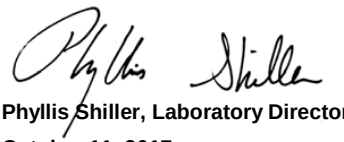
Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

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.

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



Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/02/17	10:11
Location Code:	TIGHE-DAS	Received by:	LB	10/03/17	14:18
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ13432
Phoenix ID: BZ13434

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Arsenic	< 0.71	0.71	mg/Kg	1	10/05/17	EK	SW6010C
Barium	15.3	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Beryllium	< 0.28	0.28	mg/Kg	1	10/05/17	EK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Chromium	5.93	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Copper	4.18	0.36	mg/kg	1	10/05/17	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/04/17	RS	SW7471B
Nickel	2.40	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Lead	2.34	0.36	mg/Kg	1	10/05/17	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	10/05/17	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	10/05/17	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/05/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/05/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/04/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/05/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/05/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/05/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	10/05/17	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Phoenix I.D.: BZ13434

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
SPLP Metals Digestion	Completed				10/04/17	W/W	SW3005A	
Vanadium	11.7	0.36	mg/Kg	1	10/05/17	EK	SW6010C	
Zinc	8.87	0.36	mg/Kg	1	10/05/17	EK	SW6010C	B*
Percent Solid	90		%		10/03/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	10/04/17	EG	SW9012B	
Soil Extraction for SVOA	Completed				10/03/17	JJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/04/17	AA/VCK	SW3545A	
Mercury Digestion	Completed				10/04/17	W/W	SW7471B	
SPLP Digestion Mercury	Completed				10/04/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				10/03/17	W	SW1312	
Total Metals Digest	Completed				10/03/17	AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	10/05/17	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	1	10/05/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	78		%	1	10/05/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	2.5	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloroethene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,1-Dichloropropene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dibromoethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,2-Dichloropropane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,3-Dichloropropane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
2,2-Dichloropropane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Chlorotoluene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Hexanone	ND	21	ug/Kg	1	10/04/17	JLI	SW8260C	
2-Isopropyltoluene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
4-Chlorotoluene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	21	ug/Kg	1	10/04/17	JLI	SW8260C	
Acetone	ND	210	ug/Kg	1	10/04/17	JLI	SW8260C	
Acrylonitrile	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
Benzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
Bromobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	
Bromochloromethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Phoenix I.D.: BZ13434

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Bromoform	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Bromomethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Carbon Disulfide	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Carbon tetrachloride	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Chlorobenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Chloroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Chloroform	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Chloromethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Dibromochloromethane	ND	2.5	ug/Kg	1	10/04/17	JLI	SW8260C
Dibromomethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Ethylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Isopropylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
m&p-Xylene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	25	ug/Kg	1	10/04/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.2	ug/Kg	1	10/04/17	JLI	SW8260C
Methylene chloride	ND	8.2	ug/Kg	1	10/04/17	JLI	SW8260C
Naphthalene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
n-Butylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
n-Propylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
o-Xylene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
sec-Butylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Styrene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
tert-Butylbenzene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Tetrachloroethene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.2	ug/Kg	1	10/04/17	JLI	SW8260C
Toluene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Total Xylenes	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.2	ug/Kg	1	10/04/17	JLI	SW8260C
Trichloroethene	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
Vinyl chloride	ND	4.1	ug/Kg	1	10/04/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	10/04/17	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	10/04/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/04/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/04/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Phoenix I.D.: BZ13434

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/04/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	10/04/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/04/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Phoenix I.D.: BZ13434

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	730	ug/Kg	1	10/04/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/04/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	10/04/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	10/04/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	69		%	1	10/04/17	DD	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	10/04/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	10/04/17	DD	30 - 130 %
% Nitrobenzene-d5	62		%	1	10/04/17	DD	30 - 130 %
% Phenol-d5	63		%	1	10/04/17	DD	30 - 130 %
% Terphenyl-d14	61		%	1	10/04/17	DD	30 - 130 %
Field Extraction	Completed				10/02/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: DUP 2

Phoenix I.D.: BZ13434

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

B* = Present in blank, a bias is possible.

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.
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Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ13432

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 404004 (mg/kg), QC Sample No: BZ09190 (BZ13432, BZ13433, BZ13434)														
ICP Metals - Soil														
Antimony	BRL	3.2	<3.4	<3.1	NC	104			99.0			75 - 125	30	
Arsenic	BRL	0.63	1.05	<0.62	NC	86.4			96.5			75 - 125	30	
Barium	BRL	0.32	15.1	12.7	17.3	90.8			90.9			75 - 125	30	
Beryllium	BRL	0.25	<0.27	<0.25	NC	93.8			98.9			75 - 125	30	
Cadmium	BRL	0.32	<0.34	<0.31	NC	84.3			97.5			75 - 125	30	
Chromium	BRL	0.32	5.97	4.06	38.1	88.2			97.7			75 - 125	30	r
Copper	BRL	0.32	3.94	3.85	2.30	89.8			96.3			75 - 125	30	
Lead	BRL	0.32	7.68	8.08	5.10	111			92.0			75 - 125	30	
Nickel	BRL	0.32	2.70	2.20	20.4	88.8			96.9			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.2	NC	106			95.5			75 - 125	30	
Silver	BRL	0.32	<0.34	<0.31	NC	96.7			115			75 - 125	30	
Thallium	BRL	2.8	<3.0	<2.8	NC	88.8			93.8			75 - 125	30	
Vanadium	BRL	0.32	5.88	6.32	7.20	96.2			96.4			75 - 125	30	
Zinc	3.09	0.32	19.3	18.0	7.00	112			95.1			75 - 125	30	
QA/QC Batch 404100 (mg/kg), QC Sample No: BZ09766 (BZ13432, BZ13433, BZ13434)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	95.7	97.6	2.0	102			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 404094 (mg/L), QC Sample No: BZ12600 (BZ13432, BZ13434)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	88.3			103			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 404108 (mg/L), QC Sample No: BZ13864 (BZ13432, BZ13434)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	98.7			101			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	99.4			103			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	107			108			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	103			105			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	97.6			101			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	97.8			99.8			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	104			104			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	98.1			101			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	101			103			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	101			104			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	112			113			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	99.2			101			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	101			104			75 - 125	20	

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

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QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ13432

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 404052 (mg/Kg), QC Sample No: BZ13432 50X (BZ13432, BZ13433, BZ13434)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	97.5			103			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ13432

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 404005 (ug/kg), QC Sample No: BZ14065 (BZ13432, BZ13433, BZ13434)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	52	55	5.6	52	54	3.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	52	54	3.8	50	52	3.9	30 - 130	30	
1,2-Dichlorobenzene	ND	180	48	51	6.1	51	51	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	62	65	4.7	69	70	1.4	30 - 130	30	
1,3-Dichlorobenzene	ND	230	46	48	4.3	46	48	4.3	30 - 130	30	
1,4-Dichlorobenzene	ND	230	48	50	4.1	47	49	4.2	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	54	57	5.4	56	56	0.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	54	56	3.6	56	56	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	58	61	5.0	55	57	3.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	62	65	4.7	60	69	14.0	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	29	19	41.7	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	56	61	8.5	64	64	0.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	57	60	5.1	59	60	1.7	30 - 130	30	
2-Chloronaphthalene	ND	230	54	57	5.4	57	60	5.1	30 - 130	30	
2-Chlorophenol	ND	230	52	56	7.4	60	61	1.7	30 - 130	30	
2-Methylnaphthalene	ND	230	53	55	3.7	43	37	15.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	60	65	8.0	74	72	2.7	30 - 130	30	
2-Nitroaniline	ND	330	70	74	5.6	86	85	1.2	30 - 130	30	
2-Nitrophenol	ND	230	59	62	5.0	62	63	1.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	59	64	8.1	62	63	1.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	52	59	12.6	66	63	4.7	30 - 130	30	
3-Nitroaniline	ND	330	64	68	6.1	71	70	1.4	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	20	<10	NC	47	38	21.2	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	53	56	5.5	59	58	1.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	65	71	8.8	64	66	3.1	30 - 130	30	
4-Chloroaniline	ND	230	67	71	5.8	74	75	1.3	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	50	55	9.5	57	58	1.7	30 - 130	30	
4-Nitroaniline	ND	230	65	70	7.4	72	71	1.4	30 - 130	30	
4-Nitrophenol	ND	230	63	58	8.3	73	61	17.9	30 - 130	30	
Acenaphthene	ND	230	55	60	8.7	61	63	3.2	30 - 130	30	
Acenaphthylene	ND	130	52	56	7.4	55	56	1.8	30 - 130	30	
Acetophenone	ND	230	54	58	7.1	188	173	8.3	30 - 130	30	m
Aniline	ND	330	54	56	3.6	61	61	0.0	30 - 130	30	
Anthracene	ND	230	55	60	8.7	62	62	0.0	30 - 130	30	
Benz(a)anthracene	ND	230	52	55	5.6	57	58	1.7	30 - 130	30	
Benzidine	ND	330	30	31	3.3	41	41	0.0	30 - 130	30	
Benzo(a)pyrene	ND	130	49	55	11.5	55	56	1.8	30 - 130	30	
Benzo(b)fluoranthene	ND	160	52	57	9.2	60	59	1.7	30 - 130	30	
Benzo(ghi)perylene	ND	230	49	56	13.3	56	57	1.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	54	58	7.1	58	59	1.7	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	57	49	15.1	30 - 130	30	l

QA/QC Data

SDG I.D.: GBZ13432

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzyl butyl phthalate	ND	230	55	59	7.0	60	61	1.7	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	64	68	6.1	64	66	3.1	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	52	60	14.3	54	54	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	53	57	7.3	53	54	1.9	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	57	58	1.7	61	62	1.6	30 - 130	30	
Carbazole	ND	230	57	62	8.4	63	63	0.0	30 - 130	30	
Chrysene	ND	230	56	58	3.5	60	61	1.7	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	55	61	10.3	63	63	0.0	30 - 130	30	
Dibenzofuran	ND	230	55	58	5.3	59	60	1.7	30 - 130	30	
Diethyl phthalate	ND	230	57	62	8.4	63	65	3.1	30 - 130	30	
Dimethylphthalate	ND	230	55	59	7.0	58	60	3.4	30 - 130	30	
Di-n-butylphthalate	ND	670	59	61	3.3	64	65	1.6	30 - 130	30	
Di-n-octylphthalate	ND	230	55	57	3.6	61	62	1.6	30 - 130	30	
Fluoranthene	ND	230	55	58	5.3	61	62	1.6	30 - 130	30	
Fluorene	ND	230	54	60	10.5	62	63	1.6	30 - 130	30	
Hexachlorobenzene	ND	130	55	62	12.0	63	65	3.1	30 - 130	30	
Hexachlorobutadiene	ND	230	50	52	3.9	47	49	4.2	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	47	48	2.1	39	40	2.5	30 - 130	30	
Hexachloroethane	ND	130	48	50	4.1	137	125	9.2	30 - 130	30	m
Indeno(1,2,3-cd)pyrene	ND	230	51	57	11.1	58	59	1.7	30 - 130	30	
Isophorone	ND	130	59	62	5.0	57	60	5.1	30 - 130	30	
Naphthalene	ND	230	54	58	7.1	48	37	25.9	30 - 130	30	
Nitrobenzene	ND	130	60	64	6.5	67	67	0.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	53	55	3.7	56	57	1.8	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	63	68	7.6	67	69	2.9	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	55	60	8.7	65	64	1.6	30 - 130	30	
Pentachloronitrobenzene	ND	230	51	55	7.5	58	58	0.0	30 - 130	30	
Pentachlorophenol	ND	230	41	33	21.6	60	55	8.7	30 - 130	30	
Phenanthrene	ND	130	54	59	8.8	61	62	1.6	30 - 130	30	
Phenol	ND	230	64	68	6.1	68	69	1.5	30 - 130	30	
Pyrene	ND	230	56	59	5.2	62	64	3.2	30 - 130	30	
Pyridine	ND	230	43	45	4.5	42	48	13.3	30 - 130	30	
% 2,4,6-Tribromophenol	69	%	65	71	8.8	72	72	0.0	30 - 130	30	
% 2-Fluorobiphenyl	61	%	53	56	5.5	54	57	5.4	30 - 130	30	
% 2-Fluorophenol	56	%	51	56	9.3	55	55	0.0	30 - 130	30	
% Nitrobenzene-d5	62	%	57	60	5.1	59	61	3.3	30 - 130	30	
% Phenol-d5	63	%	57	62	8.4	61	63	3.2	30 - 130	30	
% Terphenyl-d14	62	%	55	59	7.0	60	61	1.7	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%)

QA/QC Batch 404126 (ug/kg), QC Sample No: BZ14230 (BZ13432, BZ13433 (10000X) , BZ13434)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	98	102	4.0	97	95	2.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	99	103	4.0	101	98	3.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	96	99	3.1	91	92	1.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	93	95	2.1	89	89	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	104	2.9	101	99	2.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	104	108	3.8	105	101	3.9	70 - 130	30	
1,1-Dichloropropene	ND	5.0	100	103	3.0	99	97	2.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	87	92	5.6	84	84	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	94	97	3.1	89	92	3.3	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ13432

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,4-Trichlorobenzene	ND	5.0	85	88	3.5	83	81	2.4	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	94	97	3.1	94	91	3.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	92	97	5.3	82	85	3.6	70 - 130	30	
1,2-Dibromoethane	ND	5.0	96	98	2.1	90	90	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	94	97	3.1	93	91	2.2	70 - 130	30	
1,2-Dichloroethane	ND	5.0	96	100	4.1	95	94	1.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	92	97	5.3	91	90	1.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	98	101	3.0	98	95	3.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	94	96	2.1	94	91	3.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	95	99	4.1	91	90	1.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	95	3.2	92	90	2.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	104	104	0.0	101	92	9.3	70 - 130	30	
2-Chlorotoluene	ND	5.0	97	99	2.0	98	94	4.2	70 - 130	30	
2-Hexanone	ND	25	79	82	3.7	67	68	1.5	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	97	100	3.0	96	93	3.2	70 - 130	30	
4-Chlorotoluene	ND	5.0	95	97	2.1	95	92	3.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	85	87	2.3	75	76	1.3	70 - 130	30	
Acetone	ND	10	78	80	2.5	64	67	4.6	70 - 130	30	m
Acrylonitrile	ND	5.0	87	90	3.4	79	79	0.0	70 - 130	30	
Benzene	ND	1.0	95	98	3.1	94	92	2.2	70 - 130	30	
Bromobenzene	ND	5.0	95	99	4.1	96	94	2.1	70 - 130	30	
Bromochloromethane	ND	5.0	99	104	4.9	99	98	1.0	70 - 130	30	
Bromodichloromethane	ND	5.0	96	100	4.1	95	94	1.1	70 - 130	30	
Bromoform	ND	5.0	96	100	4.1	88	88	0.0	70 - 130	30	
Bromomethane	ND	5.0	103	105	1.9	123	112	9.4	70 - 130	30	
Carbon Disulfide	ND	5.0	110	113	2.7	110	105	4.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	103	105	1.9	101	96	5.1	70 - 130	30	
Chlorobenzene	ND	5.0	96	100	4.1	96	94	2.1	70 - 130	30	
Chloroethane	ND	5.0	102	104	1.9	102	93	9.2	70 - 130	30	
Chloroform	ND	5.0	98	102	4.0	100	97	3.0	70 - 130	30	
Chloromethane	ND	5.0	104	108	3.8	101	100	1.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	97	100	3.0	98	95	3.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	95	99	4.1	92	91	1.1	70 - 130	30	
Dibromochloromethane	ND	3.0	100	105	4.9	96	95	1.0	70 - 130	30	
Dibromomethane	ND	5.0	94	97	3.1	90	91	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	124	128	3.2	125	121	3.3	70 - 130	30	
Ethylbenzene	ND	1.0	97	99	2.0	97	94	3.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	97	99	2.0	91	90	1.1	70 - 130	30	
Isopropylbenzene	ND	1.0	99	101	2.0	99	96	3.1	70 - 130	30	
m&p-Xylene	ND	2.0	98	101	3.0	98	95	3.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	86	89	3.4	69	70	1.4	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	99	101	2.0	96	93	3.2	70 - 130	30	
Methylene chloride	ND	5.0	86	89	3.4	87	85	2.3	70 - 130	30	
Naphthalene	ND	5.0	90	95	5.4	87	87	0.0	70 - 130	30	
n-Butylbenzene	ND	1.0	97	99	2.0	95	92	3.2	70 - 130	30	
n-Propylbenzene	ND	1.0	98	101	3.0	98	95	3.1	70 - 130	30	
o-Xylene	ND	2.0	97	100	3.0	97	94	3.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	101	2.0	98	94	4.2	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	107	1.9	104	101	2.9	70 - 130	30	
Styrene	ND	5.0	93	96	3.2	93	90	3.3	70 - 130	30	
tert-Butylbenzene	ND	1.0	100	103	3.0	100	97	3.0	70 - 130	30	
Tetrachloroethene	ND	5.0	97	98	1.0	96	92	4.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	88	91	3.4	77	78	1.3	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ13432

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Toluene	ND	1.0	95	98	3.1	94	91	3.2	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	100	104	3.9	101	97	4.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	93	96	3.2	90	88	2.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	92	94	2.2	79	78	1.3	70 - 130	30
Trichloroethene	ND	5.0	100	102	2.0	99	96	3.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	117	120	2.5	123	114	7.6	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	104	107	2.8	107	103	3.8	70 - 130	30
Vinyl chloride	ND	5.0	113	116	2.6	114	110	3.6	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	100	0.0	99	99	0.0	70 - 130	30
% Bromofluorobenzene	98	%	99	100	1.0	99	99	0.0	70 - 130	30
% Dibromofluoromethane	98	%	100	101	1.0	98	98	0.0	70 - 130	30
% Toluene-d8	100	%	99	99	0.0	99	98	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 404855 (ug/kg), QC Sample No: BZ14549 (BZ13433 (100000X))

Volatiles - Soil

Naphthalene	ND	5.0	101	106	4.8	107	107	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 404157 (mg/Kg), QC Sample No: BZ15281 (BZ13432, BZ13433, BZ13434)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	96	74	25.9	87	77	12.2	60 - 120	30
% n-Pentacosane	74	%	71	53	29.0	69	57	19.0	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.

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
October 11, 2017

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ13432 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ13433	$8260MAR	Total Xylenes	CT / RSR DEC RES (mg/kg) / Volatiles	1160000	62000	500000	500000	ug/Kg
BZ13433	$8260MAR	Total Xylenes	CT / RSR GB (mg/kg) / Volatiles	1160000	62000	19500	19500	ug/Kg
BZ13433	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	12000	90	90	ug/Kg
BZ13433	$8260MAR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	8000000	620000	1000000	1000000	ug/Kg
BZ13433	$8260MAR	Benzene	CT / RSR DEC RES (mg/kg) / Volatiles	100000	62000	21000	21000	ug/Kg
BZ13433	$8260MAR	Acrylonitrile	CT / RSR DEC RES (mg/kg) / Volatiles	ND	6200	1100	1100	ug/Kg
BZ13433	$8260MAR	Carbon tetrachloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	12000	4700	4700	ug/Kg
BZ13433	$8260MAR	1,2-Dichloropropane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	12000	9000	9000	ug/Kg
BZ13433	$8260MAR	Styrene	CT / RSR DEC RES (mg/kg) / Volatiles	750000	62000	500000	500000	ug/Kg
BZ13433	$8260MAR	Dibromochloromethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	12000	7300	7300	ug/Kg
BZ13433	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	6200	7	7	ug/Kg
BZ13433	$8260MAR	Toluene	CT / RSR DEC RES (mg/kg) / Volatiles	800000	62000	500000	500000	ug/Kg
BZ13433	$8260MAR	1,1-Dichloroethene	CT / RSR DEC RES (mg/kg) / Volatiles	ND	6200	1000	1000	ug/Kg
BZ13433	$8260MAR	1,1,2-Trichloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	12000	11000	11000	ug/Kg
BZ13433	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	6200	320	320	ug/Kg
BZ13433	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	12000	3100	3100	ug/Kg
BZ13433	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GB (mg/kg) / APS Organics	ND	31000	800	800	ug/Kg
BZ13433	$8260MAR	Bromomethane	CT / RSR GB (mg/kg) / APS Organics	ND	25000	700	700	ug/Kg
BZ13433	$8260MAR	Isopropylbenzene	CT / RSR GB (mg/kg) / APS Organics	ND	62000	5000	5000	ug/Kg
BZ13433	$8260MAR	Hexachlorobutadiene	CT / RSR GB (mg/kg) / APS Organics	ND	6200	1500	1500	ug/Kg
BZ13433	$8260MAR	Chloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	12000	3600	3600	ug/Kg
BZ13433	$8260MAR	Chloroethane	CT / RSR GB (mg/kg) / APS Organics	ND	6200	1500	1500	ug/Kg
BZ13433	$8260MAR	Carbon Disulfide	CT / RSR GB (mg/kg) / APS Organics	ND	12000	8000	8000	ug/Kg
BZ13433	$8260MAR	n-Propylbenzene	CT / RSR GB (mg/kg) / APS Organics	40000	37000	10000	10000	ug/Kg
BZ13433	$8260MAR	2-Hexanone	CT / RSR GB (mg/kg) / APS Organics	ND	62000	7000	7000	ug/Kg
BZ13433	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	12000	210	210	ug/Kg
BZ13433	$8260MAR	1,3,5-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	110000	62000	28000	28000	ug/Kg
BZ13433	$8260MAR	2-Isopropyltoluene	CT / RSR GB (mg/kg) / APS Organics	ND	6200	5000	5000	ug/Kg
BZ13433	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	12000	40	40	ug/Kg
BZ13433	$8260MAR	1,2,4-Trimethylbenzene	CT / RSR GB (mg/kg) / APS Organics	300000	62000	28000	28000	ug/Kg
BZ13433	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	8000000	620000	56000	56000	ug/Kg
BZ13433	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	6200	100	100	ug/Kg
BZ13433	$8260MAR	Styrene	CT / RSR GB (mg/kg) / Volatiles	750000	62000	20000	20000	ug/Kg
BZ13433	$8260MAR	Chloroform	CT / RSR GB (mg/kg) / Volatiles	ND	6200	1200	1200	ug/Kg
BZ13433	$8260MAR	1,1-Dichloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	6200	1400	1400	ug/Kg
BZ13433	$8260MAR	1,1,2-Trichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	12000	1000	1000	ug/Kg
BZ13433	$8260MAR	Trichloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	6200	1000	1000	ug/Kg
BZ13433	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	12000	100	100	ug/Kg
BZ13433	$8260MAR	Vinyl chloride	CT / RSR GB (mg/kg) / Volatiles	ND	6200	400	400	ug/Kg
BZ13433	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	12000	200	200	ug/Kg
BZ13433	$8260MAR	Toluene	CT / RSR GB (mg/kg) / Volatiles	800000	62000	67000	67000	ug/Kg
BZ13433	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	6200	100	100	ug/Kg

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ13432 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ13433	$8260MAR	Bromoform	CT / RSR GB (mg/kg) / Volatiles	ND	12000	800	800	ug/Kg
BZ13433	$8260MAR	Tetrachloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	12000	1000	1000	ug/Kg
BZ13433	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	100000	62000	200	200	ug/Kg
BZ13433	$8260MAR	1,2-Dichlorobenzene	CT / RSR GB (mg/kg) / Volatiles	ND	6200	3100	3100	ug/Kg
BZ13433	$8260MAR	4-Methyl-2-pentanone	CT / RSR GB (mg/kg) / Volatiles	ND	62000	14000	14000	ug/Kg
BZ13433	$8260MAR	Carbon tetrachloride	CT / RSR GB (mg/kg) / Volatiles	ND	12000	1000	1000	ug/Kg
BZ13433	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	12000	100	100	ug/Kg
BZ13433	$8260MAR	Ethylbenzene	CT / RSR GB (mg/kg) / Volatiles	240000	62000	10100	10100	ug/Kg
BZ13433	$8260MAR	1,2-Dichloropropane	CT / RSR GB (mg/kg) / Volatiles	ND	12000	1000	1000	ug/Kg
BZ13433	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	62000	1000	1000	ug/Kg
BZ13433	$8260MAR	1,2-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	6200	200	200	ug/Kg
BZ13433	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR DEC RES (mg/kg) / APS Organics	ND	68000	56000	56000	ug/Kg
BZ13433	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR DEC RES (mg/kg) / APS Organics	ND	110000	20000	20000	ug/Kg
BZ13433	$8270-SMR	3-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	150000	31000	31000	ug/Kg
BZ13433	$8270-SMR	2-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	150000	31000	31000	ug/Kg
BZ13433	$8270-SMR	2-Methylnaphthalene	CT / RSR DEC RES (mg/kg) / APS Organics	1500000	150000	270000	270000	ug/Kg
BZ13433	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	51000	20000	20000	ug/Kg
BZ13433	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	84000	900	900	ug/Kg
BZ13433	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	100000	1400	1400	ug/Kg
BZ13433	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	85000	770	770	ug/Kg
BZ13433	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	99000	3100	3100	ug/Kg
BZ13433	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	67000	900	900	ug/Kg
BZ13433	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / APS Organics	ND	150000	68000	68000	ug/Kg
BZ13433	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	150000	8400	8400	ug/Kg
BZ13433	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	85000	200	200	ug/Kg
BZ13433	$8270-SMR	4-Nitroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	71000	31000	31000	ug/Kg
BZ13433	$8270-SMR	Chrysene	CT / RSR DEC RES (mg/kg) / APS Organics	250000	150000	84000	84000	ug/Kg
BZ13433	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	69000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Carbazole	CT / RSR DEC RES (mg/kg) / APS Organics	ND	85000	31000	31000	ug/Kg
BZ13433	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Nitrobenzene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	74000	4000	4000	ug/Kg
BZ13433	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	60000	200	200	ug/Kg
BZ13433	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	69000	200	200	ug/Kg
BZ13433	$8270-SMR	Pyridine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	52000	20000	20000	ug/Kg
BZ13433	$8270-SMR	Naphthalene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5200000	740000	1000000	1000000	ug/Kg
BZ13433	$8270-SMR	Hexachloroethane	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	150000	44000	44000	ug/Kg
BZ13433	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	220000	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Bis(2-ethylhexyl)phthalate	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	61000	44000	44000	ug/Kg
BZ13433	$8270-SMR	Pentachlorophenol	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	80000	5100	5100	ug/Kg
BZ13433	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	59000	8800	8800	ug/Kg
BZ13433	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	57000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Phenanthrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1600000	150000	1000000	1000000	ug/Kg

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ13432 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ13433	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	150000	8400	8400	ug/Kg
BZ13433	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	280000	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	60000	1000	1000	ug/Kg
BZ13433	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	100000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	250000	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	1500000	150000	5600	5600	ug/Kg
BZ13433	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	69000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2-Methylphenol (o-cresol)	CT / RSR GB (mg/kg) / APS Organics	ND	100000	28000	28000	ug/Kg
BZ13433	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	69000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	150000	1400	1400	ug/Kg
BZ13433	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	150000	2000	2000	ug/Kg
BZ13433	$8270-SMR	Acenaphthene	CT / RSR GB (mg/kg) / APS Organics	ND	150000	84000	84000	ug/Kg
BZ13433	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	150000	2000	2000	ug/Kg
BZ13433	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	74000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Hexachlorobutadiene	CT / RSR GB (mg/kg) / APS Organics	ND	77000	1500	1500	ug/Kg
BZ13433	$8270-SMR	Hexachlorocyclopentadiene	CT / RSR GB (mg/kg) / APS Organics	ND	65000	8400	8400	ug/Kg
BZ13433	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	85000	1200	1200	ug/Kg
BZ13433	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Isophorone	CT / RSR GB (mg/kg) / APS Organics	ND	60000	7400	7400	ug/Kg
BZ13433	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	85000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	85000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	68000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	52000	1000	1000	ug/Kg
BZ13433	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	51000	1000	1000	ug/Kg
BZ13433	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	99000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	85000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2,4-Dimethylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	53000	28000	28000	ug/Kg
BZ13433	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	110000	2800	2800	ug/Kg
BZ13433	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	71000	2000	2000	ug/Kg
BZ13433	$8270-SMR	Bis(2-chloroethoxy)methane	CT / RSR GB (mg/kg) / APS Organics	ND	59000	4200	4200	ug/Kg
BZ13433	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	84000	1000	1000	ug/Kg
BZ13433	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	110000	2000	2000	ug/Kg
BZ13433	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	64000	1400	1400	ug/Kg
BZ13433	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	67000	1000	1000	ug/Kg
BZ13433	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	82000	1400	1400	ug/Kg
BZ13433	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	830000	150000	40000	40000	ug/Kg
BZ13433	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	80000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Acenaphthylene	CT / RSR GB (mg/kg) / Semivolatiles	1000000	150000	84000	84000	ug/Kg

Wednesday, October 11, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ13432 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ13433	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	5200000	740000	56000	56000	ug/Kg
BZ13433	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	1600000	150000	40000	40000	ug/Kg
BZ13433	$8270-SMR	Bis(2-chloroisopropyl)ether	CT / RSR GB (mg/kg) / Semivolatiles	ND	59000	2400	2400	ug/Kg
BZ13433	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	220000	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2,4-Dichlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	75000	4000	4000	ug/Kg
BZ13433	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Di-n-octylphthalate	CT / RSR GB (mg/kg) / Semivolatiles	ND	55000	20000	20000	ug/Kg
BZ13433	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	280000	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	2-Chlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	60000	7200	7200	ug/Kg
BZ13433	$8270-SMR	Anthracene	CT / RSR GB (mg/kg) / Semivolatiles	470000	150000	400000	400000	ug/Kg
BZ13433	$8270-SMR	Di-n-butylphthalate	CT / RSR GB (mg/kg) / Semivolatiles	ND	210000	140000	140000	ug/Kg
BZ13433	$8270-SMR	Bis(2-ethylhexyl)phthalate	CT / RSR GB (mg/kg) / Semivolatiles	ND	61000	11000	11000	ug/Kg
BZ13433	$8270-SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	600000	150000	56000	56000	ug/Kg
BZ13433	$8270-SMR	Fluorene	CT / RSR GB (mg/kg) / Semivolatiles	590000	150000	56000	56000	ug/Kg
BZ13433	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	150000	1000	1000	ug/Kg
BZ13433	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR GB (mg/kg) / Semivolatiles	ND	57000	2400	2400	ug/Kg
BZ13433	$8270-SMR	1,2-Dichlorobenzene	CT / RSR GB (mg/kg) / Volatiles	ND	60000	3100	3100	ug/Kg
BZ13433	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	25000	5800	500	500	mg/Kg
BZ13433	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	25000	5800	2500	2500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

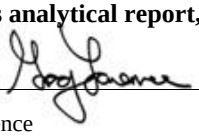
Laboratory Sample ID(s): BZ13432-BZ13434 ***Sampling Date(s):*** 10/2/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, October 11, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ13432

SDG Comments

Sample ID BZ13433
Due to the concentration of target and non-target compounds not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 10/04/17-1 Eric Geyer, Chemist 10/04/17

BZ13432, BZ13433, BZ13434

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Site Specific):

Batch 404052 (BZ13432)

BZ13432, BZ13433, BZ13434

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

ETPH Narration

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

Instrument:

AU-FID11 10/06/17-1 Jeff Bucko, Chemist 10/06/17

BZ13433

The initial calibration (ETPH930I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 10/05/17-1 Jeff Bucko, Chemist 10/05/17

BZ13432, BZ13434

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

QC (Batch Specific):

Batch 404157 (BZ15281)

BZ13432, BZ13433, BZ13434

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

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RCP Certification Report

October 11, 2017

SDG I.D.: GBZ13432

ETPH Narration

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

Mercury Narration

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

Instrument:

MERLIN 10/04/17 08:12 Rick Schweitzer, Chemist 10/04/17

BZ13432, BZ13433, BZ13434

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 404094 (BZ12600)

BZ13432, BZ13434

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

Batch 404100 (BZ09766)

BZ13432, BZ13433, BZ13434

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

ICP Metals Narration

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NY # 11301

Certification Report

October 11, 2017

SDG I.D.: GBZ13432

ICP Metals Narration

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

QC Batch 404004 (Samples: BZ13432, BZ13433, BZ13434): -----

Analyte was found in blank. A high bias is suspected. (Soil- Zinc(BZ13432, BZ13433, BZ13434))

The Sample/Duplicate RPD exceeds the method criteria for one analyte, therefore there may be a slight variability in the reported result. (Chromium)

Instrument:

ARCOS 10/05/17 09:22 Emily Kolominskaya, Chemist 10/05/17

BZ13432, BZ13433, BZ13434

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

BLUE 10/04/17 22:46 Mike Arsenault, Chemist 10/04/17

BZ13432, BZ13434

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

QC (Batch Specific):

Batch 404004 (BZ09190)

BZ13432, BZ13433, BZ13434

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

Batch 404108 (BZ13864)

BZ13432, BZ13434

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

SVOA Narration

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NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ13432

SVOA Narration

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

QC Batch 404005 (Samples: BZ13432, BZ13433, BZ13434): -----

The LCS/LCSD recovery for one or more analytes is below the method criteria. The Batch MS/MSD recovery is acceptable. Therefore a low bias for these analytes is possible. (4,6-Dinitro-2-methylphenol, Benzoic Acid)

The MS/MSD RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (2,4-Dinitrophenol)

The QC recoveries for one analyte is below the method criteria. A low bias is likely. (2,4-Dinitrophenol)

Instrument:

CHEM05 10/04/17-1 Damien Drobinski, Chemist 10/04/17

BZ13433

Initial Calibration Verification (CHEM05/SPLIT_0907):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 28% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.051 (0.1), Hexachlorobenzene 0.078 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/1004_02-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Bis(2-chloroisopropyl)ether 38%L (30%), Pentachlorophenol 32%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.055 (0.1), Acenaphthene 0.896 (0.9), Hexachlorobenzene 0.074 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM05 10/04/17-2 Damien Drobinski, Chemist 10/04/17

BZ13433

Initial Calibration Verification (CHEM05/SPLIT_0907):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/1004_33-SPLIT_0907):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM06 10/03/17-1 Damien Drobinski, Chemist 10/03/17

BZ13432, BZ13434

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RCP Certification Report

October 11, 2017

SDG I.D.: GBZ13432

SVOA Narration

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

Initial Calibration Verification (CHEM06/SPLIT_0925):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 51% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Bis(2-chloroethoxy)methane 0.291 (0.3), Hexachlorobenzene 0.076 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1003_06-SPLIT_0925):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2-Nitroaniline 36%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.054 (0.1), Acenaphthene 0.826 (0.9), Hexachlorobenzene 0.067 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 404005 (BZ14065)

BZ13432, BZ13433, BZ13434

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(20%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
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:

CHEM03 10/03/17-2 Jane Li, Chemist 10/03/17

BZ13432, BZ13433, BZ13434

Initial Calibration Verification (CHEM03/VT-L1003):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 26% (20%), Bromomethane 27% (20%), Chloroethane 28% (20%), Methylene chloride 27% (20%), Trichlorofluoromethane 22% (20%)
The following compounds did not meet recommended response factors: Acetone 0.099 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/1003L23-VT-L1003):
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.

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RCP Certification Report

October 11, 2017

SDG I.D.: GBZ13432

VOA Narration

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

CHEM26 10/05/17-1 Jane Li, Chemist 10/05/17

BZ13433

Initial Calibration Verification (CHEM26/VT-1004):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1005_02-VT-1004):
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 404126 (BZ14230)

BZ13432, BZ13433, BZ13434

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

Batch 404855 (BZ14549)

BZ13433

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

Temperature Narration

The samples were received at 3.2C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☐ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp 3.2 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: Lwilkey@trcsolutions.com

Customer: Fuss + Bond
Address: 213 Court St
Middletown CT

Project: Rocky Hill
Report to: Lynn Wilkey
Invoice to: Fuss + Bond

Project P.O: 1707550449

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: RE Date: 10/12/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	ETPH	CT RCP metals	SRP RSR metals	total Cyanide	Soil VOA Vials [X] methanol [ ] H2O	GL Soil container (4) 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
13432	SB-13 (14-15)	S	10/12/17	10:10	X	X	X	X	X	X	3	1								
13433	SB-13 (255-275)	1	1	11:00	X	X	X	X		X	3	1								
13434	Dup-2	1	1	10:11	X	X	X	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
		10/12/17	19:30
		10/13/17	13:00
	TTRAN	10/13/17	1418

Comments, Special Requirements or Regulations:
Azure: T10/25/17 BA
*as listed on jar (GP)

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 Geotech

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

PHOENIX
Environmental Laboratories, Inc.

Wednesday, October 11, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP SITE
Sample ID#s: BZ17500 - BZ17502

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	10/03/17	15:30
Location Code:	TIGHE	Received by:	SW	10/06/17	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ17500
Phoenix ID: BZ17500

Project ID: ROCKVILLE MGP SITE
Client ID: SB-22 (0-6 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		10/06/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/09/17	JJ/CKV	SW3545A
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Acenaphthene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Acenaphthylene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Anthracene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Chrysene	140	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Fluoranthene	240	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Fluorene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Naphthalene	ND	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Phenanthrene	180	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
Pyrene	250	140	ug/Kg	10	10/09/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	60		%	10	10/09/17	DD	30 - 130 %
% Nitrobenzene-d5	60		%	10	10/09/17	DD	30 - 130 %
% Terphenyl-d14	69		%	10	10/09/17	DD	30 - 130 %

Project ID: ROCKVILLE MGP SITE
Client ID: SB-22 (0-6 IN)
Phoenix I.D.: BZ17500

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:

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

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



Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	10/06/17	
Location Code:	TIGHE	Received by:	SW	10/06/17	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ17500
Phoenix ID: BZ17501

Project ID: ROCKVILLE MGP SITE
Client ID: SB-27 (3-4 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	5.60	0.72	mg/Kg	1	10/07/17	MA	SW6010C
Percent Solid	93		%		10/06/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/09/17	JJ/CKV	SW3545A
Total Metals Digest	Completed				10/06/17	L/AG/BF	SW3050B
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Acenaphthene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Acenaphthylene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Anthracene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Chrysene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Fluoranthene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Fluorene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Naphthalene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Phenanthrene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Pyrene	ND	140	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	10	10/10/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	10	10/10/17	DD	30 - 130 %
% Terphenyl-d14	80		%	10	10/10/17	DD	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-27 (3-4 IN)
Phoenix I.D.: BZ17501

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:

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 11, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	10/06/17	15:30
Location Code:	TIGHE	Received by:	SW	10/06/17	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ17500
Phoenix ID: BZ17502

Project ID: ROCKVILLE MGP SITE
Client ID: SB-26 (6-7 IN)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.05	0.67	mg/Kg	1	10/07/17	MA	SW6010C
Percent Solid	88		%		10/06/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/09/17	JJ/CKV	SW3545A
Total Metals Digest	Completed				10/06/17	L/AG/BF	SW3050B
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Acenaphthene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Acenaphthylene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Anthracene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Chrysene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Fluoranthene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Fluorene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Naphthalene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Phenanthrene	170	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
Pyrene	ND	150	ug/Kg	10	10/10/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	63		%	10	10/10/17	DD	30 - 130 %
% Nitrobenzene-d5	58		%	10	10/10/17	DD	30 - 130 %
% Terphenyl-d14	73		%	10	10/10/17	DD	30 - 130 %

Project ID: ROCKVILLE MGP SITE
Client ID: SB-26 (6-7 IN)
Phoenix I.D.: BZ17502

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:

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 11, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ17500

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 404665 (mg/kg), QC Sample No: BZ17425 (BZ17501, BZ17502)													
ICP Metals - Soil													
Arsenic	BRL	0.63	3.31	5.41	NC	88.3			96.8			75 - 125	30

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

QA/QC Report

October 11, 2017

QA/QC Data

SDG I.D.: GBZ17500

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 404846 (ug/kg), QC Sample No: BZ17246 10X (BZ17500, BZ17501, BZ17502)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	130	65	62	4.7	63	57	10.0	30 - 130	30
Acenaphthene	ND	130	76	74	2.7	70	66	5.9	30 - 130	30
Acenaphthylene	ND	130	69	67	2.9	66	62	6.3	30 - 130	30
Anthracene	ND	130	75	73	2.7	71	68	4.3	30 - 130	30
Benz(a)anthracene	ND	130	74	73	1.4	74	70	5.6	30 - 130	30
Benzo(a)pyrene	ND	130	71	71	0.0	67	64	4.6	30 - 130	30
Benzo(b)fluoranthene	ND	130	80	81	1.2	74	71	4.1	30 - 130	30
Benzo(ghi)perylene	ND	130	61	61	0.0	45	46	2.2	30 - 130	30
Benzo(k)fluoranthene	ND	130	75	73	2.7	62	62	0.0	30 - 130	30
Chrysene	ND	130	72	71	1.4	65	62	4.7	30 - 130	30
Dibenz(a,h)anthracene	ND	130	72	71	1.4	57	59	3.4	30 - 130	30
Fluoranthene	ND	130	75	72	4.1	73	70	4.2	30 - 130	30
Fluorene	ND	130	75	73	2.7	70	65	7.4	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	130	70	70	0.0	57	57	0.0	30 - 130	30
Naphthalene	ND	130	63	60	4.9	60	56	6.9	30 - 130	30
Phenanthrene	ND	130	72	70	2.8	67	63	6.2	30 - 130	30
Pyrene	ND	130	80	76	5.1	74	71	4.1	30 - 130	30
% 2-Fluorobiphenyl	68	%	72	69	4.3	65	62	4.7	30 - 130	30
% Nitrobenzene-d5	61	%	67	63	6.2	67	61	9.4	30 - 130	30
% Terphenyl-d14	81	%	80	77	3.8	73	70	4.2	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%)

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
October 11, 2017

Wednesday, October 11, 2017

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

State: CT

Sample Criteria Exceedances Report

GBZ17500 - TIGHE

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 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:*** Tighe & Bond

Project Location: ROCKVILLE MGP SITE ***Project Number:***

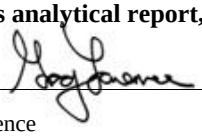
Laboratory Sample ID(s): BZ17500-BZ17502 ***Sampling Date(s):*** 10/3/2017, 10/6/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 8270

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 CTDEP Reasonable Confidence Protocol documents achieved?**	☑ Yes ☐ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, October 11, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ17500

SDG Comments

Metals Analysis:
The client requested a site specific list of elements which is shorter than the 6010 RCP list. Only Arsenic is reported as requested on the chain-of-custody.

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

ICP Metals Narration

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

Instrument:

ARCOS 10/07/17 08:35 Mike Arsenault, Chemist 10/07/17

BZ17501, BZ17502

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 404665 (BZ17425)

BZ17501, BZ17502

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

SVOASIM Narration

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

Instrument:

CHEM25 10/09/17-1 Damien Drobinski, Chemist 10/09/17

BZ17500, BZ17501, BZ17502

Initial Calibration Verification (CHEM25/PAH_SIM1006):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/1009_04-PAH_SIM1006):
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.

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

NY # 11301

RCP Certification Report

October 11, 2017

SDG I.D.: GBZ17500

SVOASIM Narration

QC (Batch Specific):

Batch 404846 (BZ17246)

BZ17500, BZ17501, BZ17502

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

Temperature Narration

The samples were received at 1.8C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 1.8 °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

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwiley@TighePond.com

Customer: Tighe + Bond Inc
Address: 213 Court Street Middletown CT
Project: Rockville MGP Site
Report to: Lynn Wiley
Invoice to: Tighe + Bond Westfield
Project P.O: 14-0755-04

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 10/6/17

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: Arsenic; PAHs SRLP PAH's

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soil VOA Vials [ ] methanol [ ] 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
17500	SB-22 (0-6")	S	10/3/17	1530		1								
17501	SB-27 (3-4')	↓	10/6/17		X X — Hold									
17502	SB-26 (6-7')	↓	10/6/17	1530	X X — Hold									

Relinquished by:	Accepted by:	Date:	Time:
DJC	APuadlie	10/6/17	1700

Comments, Special Requirements or Regulations:
Quote: T10125 17BA
Rockville Eversource MGP Site
Hold SRLP PAH Analysis

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

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

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

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

State where samples were collected: CT

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

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 490 of 1005

PHOENIX
Environmental Laboratories, Inc.

Thursday, October 26, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MCP
Sample ID#s: BZ18023 - BZ18026

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

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

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

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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Analysis Report

October 26, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/09/17	9:45
Location Code:	TIGHE-DAS	Received by:	B	10/09/17	17:15
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ18023
Phoenix ID: BZ18023

Project ID: ROCKVILLE MCP
Client ID: SB-18 (19-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Arsenic	< 0.66	0.66	mg/Kg	1	10/11/17	MA	SW6010C
Barium	18.8	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Beryllium	< 0.26	0.26	mg/Kg	1	10/11/17	MA	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Chromium	5.44	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Copper	6.16	0.33	mg/kg	1	10/11/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/11/17	RS	SW7471B
Nickel	3.47	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Lead	2.07	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	10/11/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	10/11/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/11/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/11/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/16/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/10/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/11/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	10/11/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MCP
Client ID: SB-18 (19-20)

Phoenix I.D.: BZ18023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/10/17	W/W	SW3005A
Vanadium	10.5	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Zinc	8.81	0.33	mg/Kg	1	10/11/17	MA	SW6010C
Percent Solid	96		%		10/09/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.47	0.47	mg/Kg	1	10/10/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/10/17	AA/CKV	SW3545A
Extraction of CT ETPH	Completed				10/10/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				10/11/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/10/17	W/W	SW1312/SW7470A
SPLP ETPH Extraction	Completed				10/23/17	P/D	SW3510C/SW3520C
SPLP Extraction for Metals	Completed				10/09/17	W	SW1312
SPLP Extraction for Organics	Completed				10/20/17	Q	SW1312
SPLP Extraction for Volatiles	Completed				10/09/17	Y	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				10/10/17	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				10/09/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4600	510	mg/Kg	10	10/12/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	10/12/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	10/12/17	JRB	50 - 150 %
SPLP TPH by GC (Ext. Products)							
Ext. Petroleum HC	1.6	0.10	mg/L	1	10/24/17	JRB	CT ETPH
Identification	**		mg/L	1	10/24/17	JRB	CT ETPH
QA/QC Surrogates							
% n-Pentacosane	90		%	1	10/24/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1-Dichloroethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1-Dichloroethene	ND	1000	ug/Kg	1000	10/10/17	JLI	SW8260C
1,1-Dichloropropene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2,4-Trimethylbenzene	19000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2-Dibromoethane	ND	610	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	3100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2-Dichloroethane	ND	610	ug/Kg	1000	10/10/17	JLI	SW8260C
1,2-Dichloropropane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
1,3,5-Trimethylbenzene	6900	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,3-Dichloropropane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
2,2-Dichloropropane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C

Project ID: ROCKVILLE MCP
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Phoenix I.D.: BZ18023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Chlorotoluene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
2-Hexanone	ND	7000	ug/Kg	1000	10/10/17	JLI	SW8260C
2-Isopropyltoluene	ND	5000	ug/Kg	1000	10/10/17	JLI	SW8260C
4-Chlorotoluene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	14000	ug/Kg	1000	10/10/17	JLI	SW8260C
Acetone	ND	140000	ug/Kg	1000	10/10/17	JLI	SW8260C
Acrylonitrile	ND	610	ug/Kg	1000	10/10/17	JLI	SW8260C
Benzene	ND	610	ug/Kg	1000	10/10/17	JLI	SW8260C
Bromobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Bromochloromethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Bromodichloromethane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Bromoform	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Bromomethane	ND	2500	ug/Kg	1000	10/10/17	JLI	SW8260C
Carbon Disulfide	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Carbon tetrachloride	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Chlorobenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Chloroethane	ND	1500	ug/Kg	1000	10/10/17	JLI	SW8260C
Chloroform	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Chloromethane	ND	3600	ug/Kg	1000	10/10/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Dibromochloromethane	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Dibromomethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Ethylbenzene	21000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Hexachlorobutadiene	ND	1500	ug/Kg	1000	10/10/17	JLI	SW8260C
Isopropylbenzene	3300	3100	ug/Kg	1000	10/10/17	JLI	SW8260C
m&p-Xylene	26000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	37000	ug/Kg	1000	10/10/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12000	ug/Kg	1000	10/10/17	JLI	SW8260C
Methylene chloride	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Naphthalene	210000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
n-Butylbenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
n-Propylbenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
o-Xylene	12000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
p-Isopropyltoluene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
sec-Butylbenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Styrene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
tert-Butylbenzene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Tetrachloroethene	ND	1200	ug/Kg	1000	10/10/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	3100	ug/Kg	1000	10/10/17	JLI	SW8260C
Toluene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Total Xylenes	38000	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12000	ug/Kg	1000	10/10/17	JLI	SW8260C
Trichloroethene	ND	1000	ug/Kg	1000	10/10/17	JLI	SW8260C
Trichlorofluoromethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6100	ug/Kg	1000	10/10/17	JLI	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vinyl chloride	ND	610	ug/Kg	1000	10/10/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1000	10/10/17	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1000	10/10/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1000	10/10/17	JLI	70 - 130 %
% Toluene-d8	88		%	1000	10/10/17	JLI	70 - 130 %
SPLP Volatiles (GA crieteria)							
1,1,1,2-Tetrachloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,1,1-Trichloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	10	ug/L	20	10/10/17	HM	SW8260C
1,1,2-Trichloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,1-Dichloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,1-Dichloroethene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,1-Dichloropropene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2,3-Trichlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2,3-Trichloropropane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2,4-Trichlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2,4-Trimethylbenzene	140	20	ug/L	20	10/10/17	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2-Dichlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2-Dichloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,2-Dichloropropane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,3,5-Trimethylbenzene	47	20	ug/L	20	10/10/17	HM	SW8260C
1,3-Dichlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,3-Dichloropropane	ND	20	ug/L	20	10/10/17	HM	SW8260C
1,4-Dichlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
2,2-Dichloropropane	ND	20	ug/L	20	10/10/17	HM	SW8260C
2-Chlorotoluene	ND	20	ug/L	20	10/10/17	HM	SW8260C
2-Hexanone	ND	100	ug/L	20	10/10/17	HM	SW8260C
2-Isopropyltoluene	ND	20	ug/L	20	10/10/17	HM	SW8260C
4-Chlorotoluene	ND	20	ug/L	20	10/10/17	HM	SW8260C
4-Methyl-2-pentanone	ND	100	ug/L	20	10/10/17	HM	SW8260C
Acetone	ND	1000	ug/L	20	10/10/17	HM	SW8260C
Acrylonitrile	ND	100	ug/L	20	10/10/17	HM	SW8260C
Benzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Bromobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Bromochloromethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Bromodichloromethane	ND	10	ug/L	20	10/10/17	HM	SW8260C
Bromoform	ND	20	ug/L	20	10/10/17	HM	SW8260C
Bromomethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Carbon Disulfide	ND	100	ug/L	20	10/10/17	HM	SW8260C
Carbon tetrachloride	ND	20	ug/L	20	10/10/17	HM	SW8260C
Chlorobenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Chloroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Chloroform	ND	20	ug/L	20	10/10/17	HM	SW8260C
Chloromethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
cis-1,2-Dichloroethene	ND	20	ug/L	20	10/10/17	HM	SW8260C
cis-1,3-Dichloropropene	ND	8.0	ug/L	20	10/10/17	HM	SW8260C
Dibromochloromethane	ND	10	ug/L	20	10/10/17	HM	SW8260C

Ver 2

Project ID: ROCKVILLE MCP
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Phoenix I.D.: BZ18023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Dibromomethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Dichlorodifluoromethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Ethylbenzene	300	20	ug/L	20	10/10/17	HM	SW8260C
Hexachlorobutadiene	ND	8.0	ug/L	20	10/10/17	HM	SW8260C
Isopropylbenzene	24	20	ug/L	20	10/10/17	HM	SW8260C
m&p-Xylene	360	20	ug/L	20	10/10/17	HM	SW8260C
Methyl ethyl ketone	ND	100	ug/L	20	10/10/17	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	ug/L	20	10/10/17	HM	SW8260C
Naphthalene	2500	400	ug/L	400	10/18/17	HM	SW8260C
n-Butylbenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
n-Propylbenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
o-Xylene	200	20	ug/L	20	10/10/17	HM	SW8260C
p-Isopropyltoluene	ND	20	ug/L	20	10/10/17	HM	SW8260C
sec-Butylbenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Styrene	ND	20	ug/L	20	10/10/17	HM	SW8260C
tert-Butylbenzene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Tetrachloroethene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Tetrahydrofuran (THF)	ND	100	ug/L	20	10/10/17	HM	SW8260C
Toluene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Total Xylenes	560	20	ug/L	20	10/10/17	HM	SW8260C
trans-1,2-Dichloroethene	ND	20	ug/L	20	10/10/17	HM	SW8260C
trans-1,3-Dichloropropene	ND	8.0	ug/L	20	10/10/17	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	100	ug/L	20	10/10/17	HM	SW8260C
Trichloroethene	ND	20	ug/L	20	10/10/17	HM	SW8260C
Trichlorofluoromethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Trichlorotrifluoroethane	ND	20	ug/L	20	10/10/17	HM	SW8260C
Vinyl chloride	ND	20	ug/L	20	10/10/17	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	20	10/10/17	HM	70 - 130 %
% Bromofluorobenzene	100		%	20	10/10/17	HM	70 - 130 %
% Dibromofluoromethane	97		%	20	10/10/17	HM	70 - 130 %
% Toluene-d8	98		%	20	10/10/17	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1700	ug/Kg	20	10/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	10/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	3500	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	2700	ug/Kg	20	10/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
2-Chloronaphthalene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2-Chlorophenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2-Methylnaphthalene	50000	4800	ug/Kg	20	10/11/17	DD	SW8270D

Ver 2

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Phoenix I.D.: BZ18023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylphenol (o-cresol)	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2-Nitroaniline	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
2-Nitrophenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	6900	ug/Kg	20	10/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	3300	ug/Kg	20	10/11/17	DD	SW8270D
3-Nitroaniline	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	3500	ug/Kg	20	10/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	6900	ug/Kg	20	10/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
4-Chloroaniline	ND	3200	ug/Kg	20	10/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
4-Nitroaniline	ND	2300	ug/Kg	20	10/11/17	DD	SW8270D
4-Nitrophenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Acenaphthene	29000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Acenaphthylene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Acetophenone	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Aniline	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Anthracene	15000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benz(a)anthracene	8900	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benzidine	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(a)pyrene	8300	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(b)fluoranthene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(ghi)perylene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(k)fluoranthene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Benzoic acid	ND	14000	ug/Kg	20	10/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1900	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Carbazole	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Chrysene	8300	4800	ug/Kg	20	10/11/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
Dibenzofuran	ND	2000	ug/Kg	20	10/11/17	DD	SW8270D
Diethyl phthalate	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Dimethylphthalate	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Di-n-butylphthalate	ND	14000	ug/Kg	20	10/11/17	DD	SW8270D
Di-n-octylphthalate	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Fluoranthene	18000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Fluorene	16000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorobenzene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorobutadiene	ND	2500	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Hexachloroethane	ND	2100	ug/Kg	20	10/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Isophorone	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Naphthalene	150000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Nitrobenzene	ND	2400	ug/Kg	20	10/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1900	ug/Kg	20	10/11/17	DD	SW8270D

Project ID: ROCKVILLE MCP
Client ID: SB-18 (19-20)

Phoenix I.D.: BZ18023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	2700	ug/Kg	20	10/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	2100	ug/Kg	20	10/11/17	DD	SW8270D
Pentachlorophenol	ND	2600	ug/Kg	20	10/11/17	DD	SW8270D
Phenanthrene	53000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Phenol	ND	4800	ug/Kg	20	10/11/17	DD	SW8270D
Pyrene	26000	4800	ug/Kg	20	10/11/17	DD	SW8270D
Pyridine	ND	1700	ug/Kg	20	10/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	68		%	20	10/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	81		%	20	10/11/17	DD	30 - 130 %
% 2-Fluorophenol	56		%	20	10/11/17	DD	30 - 130 %
% Nitrobenzene-d5	66		%	20	10/11/17	DD	30 - 130 %
% Phenol-d5	59		%	20	10/11/17	DD	30 - 130 %
% Terphenyl-d14	71		%	20	10/11/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	100	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Acenaphthene	53	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Acenaphthylene	ND	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Anthracene	ND	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Chrysene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.19	ug/L	20	10/11/17	DD	SW8270D (SIM)
Fluoranthene	ND	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Fluorene	22	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.38	ug/L	20	10/11/17	DD	SW8270D (SIM)
Naphthalene	860	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
Phenanthrene	34	1.3	ug/L	20	10/11/17	DD	SW8270D (SIM)
Pyrene	ND	1.9	ug/L	20	10/11/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	10/11/17	DD	30 - 130 %
Field Extraction	Completed				10/09/17		SW5035A

Project ID: ROCKVILLE MCP
Client ID: SB-18 (19-20)

Phoenix I.D.: BZ18023

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:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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:
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.

Semi-Volatile Comment:
The client requested semivolatile SIM analysis for some compounds. Due to sample matrix, the sample had to be run full scan and could not be evaluated to the requested detection levels.

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

SPLP Volatile comment:
Methylene chloride and 1,2-Dibromoethane are not included in the SPLP list.
1,2-Dibromoethane does not meet GA criteria for the SPLP 8260 extraction, this compound is analyzed by GC/ECD to achieve this criteria.

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 26, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/09/17	10:05
Location Code:	TIGHE-DAS	Received by:	B	10/09/17	17:15
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ18023
Phoenix ID: BZ18024

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Arsenic	3.84	0.80	mg/Kg	1	10/11/17	MA	SW6010C
Barium	76.5	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Beryllium	0.51	0.32	mg/Kg	1	10/11/17	MA	SW6010C
Cadmium	2.63	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Chromium	16.7	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Copper	63.3	0.40	mg/kg	1	10/11/17	MA	SW6010C
Mercury	0.70	0.03	mg/Kg	1	10/11/17	RS	SW7471B
Nickel	11.5	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Lead	92.2	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	10/11/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	10/11/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/11/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/11/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/16/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/10/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/11/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Vanadium	0.013	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	10/11/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Phoenix I.D.: BZ18024

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/10/17	W/W	SW3005A
Vanadium	39.8	0.40	mg/Kg	1	10/11/17	MA	SW6010C
Zinc	165	4.0	mg/Kg	10	10/12/17	MA	SW6010C
Percent Solid	87		%		10/09/17	Q	SW846-%Solid
SPLP Cyanide	< 0.01	0.01	mg/L	1	10/12/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	1.26	0.52	mg/Kg	1	10/10/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/10/17	AA/CKV	SW3545A
Extraction of CT ETPH	Completed				10/10/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				10/11/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/10/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/09/17	W	SW1312
SPLP Inorganic Extraction	Completed				10/09/17	W	SW1311
Total Metals Digest	Completed				10/09/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	280	mg/Kg	5	10/11/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	10/11/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	5	10/11/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.3	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloropropene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloropropane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichloropropane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
2,2-Dichloropropane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
2-Chlorotoluene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
2-Hexanone	ND	36	ug/Kg	1	10/10/17	JLI	SW8260C
2-Isopropyltoluene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
4-Chlorotoluene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/Kg	1	10/10/17	JLI	SW8260C
Acetone	ND	360	ug/Kg	1	10/10/17	JLI	SW8260C
Acrylonitrile	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Benzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Phoenix I.D.: BZ18024

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Bromochloromethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Bromodichloromethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Bromoform	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Bromomethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon Disulfide	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon tetrachloride	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Chlorobenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroform	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Chloromethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromochloromethane	ND	4.3	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromomethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Dichlorodifluoromethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Ethylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Hexachlorobutadiene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Isopropylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
m&p-Xylene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	43	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	10/10/17	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	10/10/17	JLI	SW8260C
Naphthalene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
n-Butylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
n-Propylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
o-Xylene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
p-Isopropyltoluene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
sec-Butylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Styrene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
tert-Butylbenzene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrachloroethene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	10/10/17	JLI	SW8260C
Toluene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Total Xylenes	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	10/10/17	JLI	SW8260C
Trichloroethene	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorofluoromethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
Vinyl chloride	ND	7.2	ug/Kg	1	10/10/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	10/10/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/10/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	10/10/17	JLI	70 - 130 %
% Toluene-d8	90		%	1	10/10/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Phoenix I.D.: BZ18024

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	10/10/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Acenaphthylene	970	260	ug/Kg	1	10/10/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Anthracene	390	260	ug/Kg	1	10/10/17	DD	SW8270D
Benz(a)anthracene	1400	260	ug/Kg	1	10/10/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(a)pyrene	2600	260	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(b)fluoranthene	2400	260	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(ghi)perylene	1800	260	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(k)fluoranthene	1800	260	ug/Kg	1	10/10/17	DD	SW8270D
Benzoic acid	ND	750	ug/Kg	1	10/10/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Chrysene	2000	260	ug/Kg	1	10/10/17	DD	SW8270D
Dibenz(a,h)anthracene	570	260	ug/Kg	1	10/10/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	10/10/17	DD	SW8270D

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Phoenix I.D.: BZ18024

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Di-n-butylphthalate	ND	750	ug/Kg	1	10/10/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Fluoranthene	2100	260	ug/Kg	1	10/10/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1800	260	ug/Kg	1	10/10/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Naphthalene	410	260	ug/Kg	1	10/10/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
Phenanthrene	920	260	ug/Kg	1	10/10/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	10/10/17	DD	SW8270D
Pyrene	2600	260	ug/Kg	1	10/10/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	10/10/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	73		%	1	10/10/17	DD	30 - 130 %
% 2-Fluorobiphenyl	84		%	1	10/10/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	10/10/17	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	10/10/17	DD	30 - 130 %
% Phenol-d5	69		%	1	10/10/17	DD	30 - 130 %
% Terphenyl-d14	73		%	1	10/10/17	DD	30 - 130 %
Field Extraction	Completed				10/09/17		SW5035A

Project ID: ROCKVILLE MCP
Client ID: TP-1 (5-7)

Phoenix I.D.: BZ18024

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.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 26, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/09/17	11:45
Location Code:	TIGHE-DAS	Received by:	B	10/09/17	17:15
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ18023
Phoenix ID: BZ18025

Project ID: ROCKVILLE MCP
Client ID: TP-2 (7-9)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Arsenic	2.83	0.68	mg/Kg	1	10/11/17	MA	SW6010C
Barium	64.7	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Beryllium	0.37	0.27	mg/Kg	1	10/11/17	MA	SW6010C
Cadmium	0.59	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Chromium	15.3	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Copper	64.3	0.34	mg/kg	1	10/11/17	MA	SW6010C
Mercury	1.41	0.03	mg/Kg	1	10/12/17	RS	SW7471B
Nickel	11.6	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Lead	48.1	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Antimony	< 3.4	3.4	mg/Kg	1	10/11/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	10/11/17	MA	SW6010C
Thallium	< 3.1	3.1	mg/Kg	1	10/11/17	MA	SW6010C
Vanadium	42.7	0.34	mg/Kg	1	10/11/17	MA	SW6010C
Zinc	237	3.4	mg/Kg	10	10/12/17	MA	SW6010C
Percent Solid	86		%		10/09/17	Q	SW846-%Solid
SPLP Cyanide	< 0.01	0.01	mg/L	1	10/12/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	1.05	0.58	mg/Kg	1	10/10/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/10/17	AA/CKV	SW3545A
Extraction of CT ETPH	Completed				10/10/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				10/12/17	W/W	SW7471B
SPLP Inorganic Extraction	Completed				10/09/17	W	SW1311
Total Metals Digest	Completed				10/09/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	290	mg/Kg	5	10/11/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	10/11/17	JRB	CTETPH 8015D
QA/QC Surrogates							

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-2 (7-9)

Phoenix I.D.: BZ18025

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% n-Pentacosane	61		%	5	10/11/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.7	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloropropene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloropropane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichloropropane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
2,2-Dichloropropane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
2-Chlorotoluene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
2-Hexanone	ND	47	ug/Kg	1	10/10/17	JLI	SW8260C
2-Isopropyltoluene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
4-Chlorotoluene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	47	ug/Kg	1	10/10/17	JLI	SW8260C
Acetone	ND	470	ug/Kg	1	10/10/17	JLI	SW8260C
Acrylonitrile	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Benzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Bromobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Bromochloromethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Bromodichloromethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Bromoform	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Bromomethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon Disulfide	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon tetrachloride	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Chlorobenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroform	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Chloromethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromochloromethane	ND	5.7	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromomethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Dichlorodifluoromethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Ethylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Hexachlorobutadiene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C

Project ID: ROCKVILLE MCP
Client ID: TP-2 (7-9)

Phoenix I.D.: BZ18025

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
m&p-Xylene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	57	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	19	ug/Kg	1	10/10/17	JLI	SW8260C
Methylene chloride	ND	19	ug/Kg	1	10/10/17	JLI	SW8260C
Naphthalene	25	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
n-Butylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
n-Propylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
o-Xylene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
p-Isopropyltoluene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
sec-Butylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Styrene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
tert-Butylbenzene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrachloroethene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	19	ug/Kg	1	10/10/17	JLI	SW8260C
Toluene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Total Xylenes	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	19	ug/Kg	1	10/10/17	JLI	SW8260C
Trichloroethene	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorofluoromethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
Vinyl chloride	ND	9.5	ug/Kg	1	10/10/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	10/10/17	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	10/10/17	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	10/10/17	JLI	70 - 130 %
% Toluene-d8	89		%	1	10/10/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-2 (7-9)

Phoenix I.D.: BZ18025

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
4-Nitroaniline	ND	610	ug/Kg	1	10/10/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Acenaphthylene	420	270	ug/Kg	1	10/10/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Aniline	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
Anthracene	480	270	ug/Kg	1	10/10/17	DD	SW8270D
Benz(a)anthracene	1100	270	ug/Kg	1	10/10/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(a)pyrene	1300	270	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(b)fluoranthene	1100	270	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(ghi)perylene	1200	270	ug/Kg	1	10/10/17	DD	SW8270D
Benzo(k)fluoranthene	940	270	ug/Kg	1	10/10/17	DD	SW8270D
Benzoic acid	ND	770	ug/Kg	1	10/10/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Carbazole	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
Chrysene	1300	270	ug/Kg	1	10/10/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Di-n-butylphthalate	ND	770	ug/Kg	1	10/10/17	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Fluoranthene	2200	270	ug/Kg	1	10/10/17	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1100	270	ug/Kg	1	10/10/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/10/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	10/10/17	DD	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	10/10/17	DD	SW8270D

Project ID: ROCKVILLE MCP
Client ID: TP-2 (7-9)

Phoenix I.D.: BZ18025

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pentachlorophenol	ND	380	ug/Kg	1	10/10/17	DD	SW8270D	
Phenanthrene	1700	270	ug/Kg	1	10/10/17	DD	SW8270D	
Phenol	ND	270	ug/Kg	1	10/10/17	DD	SW8270D	
Pyrene	2100	270	ug/Kg	1	10/10/17	DD	SW8270D	
Pyridine	ND	380	ug/Kg	1	10/10/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	31		%	1	10/10/17	DD	30 - 130 %	
% 2-Fluorobiphenyl	38		%	1	10/10/17	DD	30 - 130 %	
% 2-Fluorophenol	28		%	1	10/10/17	DD	30 - 130 %	3
% Nitrobenzene-d5	34		%	1	10/10/17	DD	30 - 130 %	
% Phenol-d5	32		%	1	10/10/17	DD	30 - 130 %	
% Terphenyl-d14	32		%	1	10/10/17	DD	30 - 130 %	
Field Extraction	Completed				10/09/17		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.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
October 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

October 26, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/09/17	14:45
Location Code:	TIGHE-DAS	Received by:	B	10/09/17	17:15
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755044				

Laboratory Data

SDG ID: GBZ18023
Phoenix ID: BZ18026

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Arsenic	6.31	0.75	mg/Kg	1	10/11/17	MA	SW6010C
Barium	98.8	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Beryllium	0.58	0.30	mg/Kg	1	10/11/17	MA	SW6010C
Cadmium	0.46	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Chromium	17.7	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Copper	36.0	0.37	mg/kg	1	10/11/17	MA	SW6010C
Mercury	2.98	0.13	mg/Kg	1	10/12/17	RS	SW7471B
Nickel	18.3	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Lead	60.7	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	10/11/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	10/11/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/11/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/11/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/16/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/10/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/11/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/11/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/11/17	MA	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	10/11/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Phoenix I.D.: BZ18026

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/10/17	W/W	SW3005A
Vanadium	27.6	0.37	mg/Kg	1	10/11/17	MA	SW6010C
Zinc	161	3.7	mg/Kg	10	10/12/17	MA	SW6010C
Percent Solid	93		%		10/09/17	Q	SW846-%Solid
SPLP Cyanide	0.10	0.01	mg/L	1	10/12/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	66.9	2.69	mg/Kg	5	10/10/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/10/17	AA/CKV	SW3545A
Extraction of CT ETPH	Completed				10/10/17	JJ/VCK	SW3545A
Mercury Digestion	Completed				10/12/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/10/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/09/17	W	SW1312
SPLP Inorganic Extraction	Completed				10/09/17	W	SW1311
Total Metals Digest	Completed				10/09/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2000	270	mg/Kg	5	10/11/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	10/11/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	10/11/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	10/10/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	10/10/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	10/10/17	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	10/10/17	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Phoenix I.D.: BZ18026

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Bromoform	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon Disulfide	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	10/10/17	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	10/10/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	10/10/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	10/10/17	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
o-Xylene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrachloroethene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	10/10/17	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	10/10/17	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	10/10/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	10/10/17	JLI	70 - 130 %
% Bromofluorobenzene	91		%	1	10/10/17	JLI	70 - 130 %
% Dibromofluoromethane	105		%	1	10/10/17	JLI	70 - 130 %
% Toluene-d8	90		%	1	10/10/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1700	ug/Kg	20	10/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Phoenix I.D.: BZ18026

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	10/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	3500	ug/Kg	20	10/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	2200	ug/Kg	20	10/11/17	DD	SW8270D
2-Chloronaphthalene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2-Chlorophenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2-Methylnaphthalene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2-Nitroaniline	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
2-Nitrophenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	7000	ug/Kg	20	10/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	3300	ug/Kg	20	10/11/17	DD	SW8270D
3-Nitroaniline	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	3500	ug/Kg	20	10/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	7000	ug/Kg	20	10/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
4-Chloroaniline	ND	3300	ug/Kg	20	10/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
4-Nitroaniline	ND	2300	ug/Kg	20	10/11/17	DD	SW8270D
4-Nitrophenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Acenaphthene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Acenaphthylene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Acetophenone	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Aniline	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Anthracene	6100	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benz(a)anthracene	33000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benzidine	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(a)pyrene	28000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(b)fluoranthene	24000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(ghi)perylene	13000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benzo(k)fluoranthene	26000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Benzoic acid	ND	14000	ug/Kg	20	10/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1900	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	10/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Carbazole	ND	2800	ug/Kg	20	10/11/17	DD	SW8270D
Chrysene	29000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Dibenzofuran	ND	2000	ug/Kg	20	10/11/17	DD	SW8270D

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Phoenix I.D.: BZ18026

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Dimethylphthalate	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Di-n-butylphthalate	ND	14000	ug/Kg	20	10/11/17	DD	SW8270D
Di-n-octylphthalate	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Fluoranthene	55000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Fluorene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorobenzene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorobutadiene	ND	2500	ug/Kg	20	10/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Hexachloroethane	ND	2100	ug/Kg	20	10/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	17000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Isophorone	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Naphthalene	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Nitrobenzene	ND	2500	ug/Kg	20	10/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	2000	ug/Kg	20	10/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	2300	ug/Kg	20	10/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	2700	ug/Kg	20	10/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	2100	ug/Kg	20	10/11/17	DD	SW8270D
Pentachlorophenol	ND	2700	ug/Kg	20	10/11/17	DD	SW8270D
Phenanthrene	17000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Phenol	ND	4900	ug/Kg	20	10/11/17	DD	SW8270D
Pyrene	49000	4900	ug/Kg	20	10/11/17	DD	SW8270D
Pyridine	ND	1700	ug/Kg	20	10/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	20	10/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	10/11/17	DD	30 - 130 %
Field Extraction	Completed				10/09/17		SW5035A

Project ID: ROCKVILLE MCP
Client ID: TP-3 (2-3)

Phoenix I.D.: BZ18026

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.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

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.

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.
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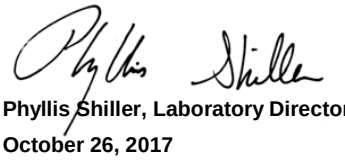

Phyllis Shiller, Laboratory Director
October 26, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

October 26, 2017

QA/QC Data

SDG I.D.: GBZ18023

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 404939 (mg/L), QC Sample No: BZ17649 (BZ18023, BZ18024, BZ18026)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	110			97.9			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	108			97.7			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	109			109			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	108			105			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	111			97.4			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	107			96.2			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	106			107			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	107			96.0			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	111			99.2			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	111			102			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	106			102			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	109			97.2			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	104			103			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	112			98.3			75 - 125	20	
QA/QC Batch 404940 (mg/L), QC Sample No: BZ17792 (BZ18023, BZ18024, BZ18026)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	101			96.3			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 404875 (mg/kg), QC Sample No: BZ17960 (BZ18023, BZ18024, BZ18025, BZ18026)														
ICP Metals - Soil														
Antimony	BRL	3.3	<6.6	<6.9	NC	94.7			96.8			75 - 125	30	
Arsenic	BRL	0.66	17.6	18.6	5.50	96.8			91.9			75 - 125	30	
Barium	BRL	0.33	160	157	1.90	96.4			107			75 - 125	30	
Beryllium	BRL	0.26	0.91	0.99	NC	97.3			96.4			75 - 125	30	
Cadmium	BRL	0.33	4.20	3.32	NC	95.8			95.8			75 - 125	30	
Chromium	BRL	0.33	102	97.2	4.80	95.5			99.7			75 - 125	30	
Copper	BRL	0.33	1480	1430	3.40	86.9			NC			75 - 125	30	
Lead	BRL	0.33	295	423	35.7	98.6			101			75 - 125	30	r
Nickel	BRL	0.33	46.7	48.8	4.40	98.5			97.9			75 - 125	30	
Selenium	BRL	1.3	<2.7	<2.8	NC	91.2			82.7			75 - 125	30	
Silver	BRL	0.33	8.80	8.38	4.90	86.4			94.5			75 - 125	30	
Thallium	BRL	3.0	<6.0	<6.2	NC	94.8			100			75 - 125	30	
Vanadium	BRL	0.33	50.3	50.8	1.00	88.8			105			75 - 125	30	
Zinc	BRL	0.33	746	937	22.7	97.2			105			75 - 125	30	
QA/QC Batch 405086 (mg/kg), QC Sample No: BZ18800 (BZ18023, BZ18024)														
Mercury - Soil	BRL	0.03	<0.02	<0.03	NC	96.9	87.3	10.4	91.5			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 405243 (mg/kg), QC Sample No: BZ19047 (BZ18025, BZ18026)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	87.8	90.5	3.0	90.3			70 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

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

Comment:

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

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

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QA/QC Report

October 26, 2017

QA/QC Data

SDG I.D.: GBZ18023

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 404906 (mg/Kg), QC Sample No: BZ17773 50X (BZ18023, BZ18024, BZ18025, BZ18026)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.54	<0.54	NC	98.7			105			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 405206 (mg/L), QC Sample No: BZ18923 (BZ18024, BZ18025, BZ18026)													
Total Cyanide	BRL	0.01	<0.010	<0.01	NC	99.3			105			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

October 26, 2017

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 405020 (ug/L), QC Sample No: BZ17320 (BZ18023)											
Semivolatiles by SIM											
2-Methylnaphthalene	ND	0.05	66	71	7.3				30 - 130	20	
Acenaphthene	ND	0.05	81	86	6.0				30 - 130	20	
Acenaphthylene	ND	0.04	75	76	1.3				30 - 130	20	
Anthracene	ND	0.02	85	92	7.9				30 - 130	20	
Benz(a)anthracene	ND	0.02	85	86	1.2				30 - 130	20	
Benzo(a)pyrene	ND	0.02	72	74	2.7				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	88	89	1.1				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	77	80	3.8				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	80	81	1.2				30 - 130	20	
Chrysene	ND	0.02	81	83	2.4				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	81	84	3.6				30 - 130	20	
Fluoranthene	ND	0.04	80	79	1.3				30 - 130	20	
Fluorene	ND	0.05	81	80	1.2				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	77	80	3.8				30 - 130	20	
Naphthalene	ND	0.05	59	62	5.0				30 - 130	20	
Phenanthrene	ND	0.05	80	86	7.2				30 - 130	20	
Pyrene	ND	0.02	82	87	5.9				30 - 130	20	
% 2-Fluorobiphenyl	67	%	71	73	2.8				30 - 130	20	
% Nitrobenzene-d5	67	%	54	59	8.8				30 - 130	20	
% Terphenyl-d14	80	%	75	78	3.9				30 - 130	20	

Comment:

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

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

QA/QC Batch 404988 (mg/Kg), QC Sample No: BZ17878 (BZ18023, BZ18024, BZ18025, BZ18026)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	95			80	82	2.5	60 - 120	30	
% n-Pentacosane	32	%	77			58	58	0.0	50 - 150	30	s

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 405145 (ug/kg), QC Sample No: BZ18019 (BZ18023 (1000X) , BZ18024, BZ18025, BZ18026)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	103	102	1.0	88	92	4.4	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	100	99	1.0	91	93	2.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	109	107	1.9	103	105	1.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	100	99	1.0	99	99	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	104	102	1.9	99	97	2.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	98	96	2.1	85	82	3.6	70 - 130	30	
1,1-Dichloropropene	ND	5.0	101	99	2.0	100	99	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichlorobenzene	ND	5.0	100	99	1.0	98	103	5.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	99	98	1.0	93	95	2.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	96	95	1.0	93	98	5.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	98	98	0.0	100	99	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	112	116	3.5	95	98	3.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	101	0.0	97	101	4.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	103	101	2.0	103	104	1.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	99	99	0.0	96	97	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	104	104	0.0	103	103	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	100	98	2.0	99	100	1.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	99	98	1.0	98	100	2.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	99	99	0.0	97	99	2.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	101	99	2.0	100	101	1.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	105	102	2.9	84	85	1.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	103	102	1.0	104	103	1.0	70 - 130	30	
2-Hexanone	ND	25	95	95	0.0	88	91	3.4	70 - 130	30	
2-Isopropyltoluene	ND	5.0	105	105	0.0	107	107	0.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	98	97	1.0	99	99	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	103	103	0.0	95	98	3.1	70 - 130	30	
Acetone	ND	10	78	76	2.6	65	66	1.5	70 - 130	30	m
Acrylonitrile	ND	5.0	107	107	0.0	100	102	2.0	70 - 130	30	
Benzene	ND	1.0	101	100	1.0	100	100	0.0	70 - 130	30	
Bromobenzene	ND	5.0	105	107	1.9	107	106	0.9	70 - 130	30	
Bromochloromethane	ND	5.0	98	99	1.0	93	94	1.1	70 - 130	30	
Bromodichloromethane	ND	5.0	100	100	0.0	88	91	3.4	70 - 130	30	
Bromoform	ND	5.0	101	104	2.9	75	79	5.2	70 - 130	30	
Bromomethane	ND	5.0	98	94	4.2	61	64	4.8	70 - 130	30	m
Carbon Disulfide	ND	5.0	106	104	1.9	91	91	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	101	99	2.0	74	78	5.3	70 - 130	30	
Chlorobenzene	ND	5.0	100	99	1.0	100	101	1.0	70 - 130	30	
Chloroethane	ND	5.0	102	98	4.0	25	24	4.1	70 - 130	30	m
Chloroform	ND	5.0	96	94	2.1	83	83	0.0	70 - 130	30	
Chloromethane	ND	5.0	94	93	1.1	91	90	1.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	100	3.0	99	99	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	106	106	0.0	98	98	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	107	108	0.9	88	91	3.4	70 - 130	30	
Dibromomethane	ND	5.0	103	101	2.0	98	100	2.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	89	88	1.1	84	83	1.2	70 - 130	30	
Ethylbenzene	ND	1.0	99	99	0.0	100	101	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	101	104	2.9	104	106	1.9	70 - 130	30	
Isopropylbenzene	ND	1.0	104	103	1.0	104	105	1.0	70 - 130	30	
m&p-Xylene	ND	2.0	97	97	0.0	98	98	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	89	91	2.2	83	84	1.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	98	96	2.1	94	94	0.0	70 - 130	30	
Methylene chloride	ND	5.0	92	91	1.1	89	88	1.1	70 - 130	30	
Naphthalene	ND	5.0	107	107	0.0	95	100	5.1	70 - 130	30	
n-Butylbenzene	ND	1.0	101	101	0.0	103	104	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	103	101	2.0	103	104	1.0	70 - 130	30	
o-Xylene	ND	2.0	104	101	2.9	103	105	1.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	100	101	1.0	103	104	1.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	104	104	0.0	104	105	1.0	70 - 130	30	
Styrene	ND	5.0	98	97	1.0	98	99	1.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	103	102	1.0	102	105	2.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrachloroethene	ND	5.0	100	99	1.0	103	105	1.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	99	100	1.0	92	93	1.1	70 - 130	30	
Toluene	ND	1.0	103	102	1.0	103	104	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	94	93	1.1	85	86	1.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	100	99	1.0	88	90	2.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	114	113	0.9	87	91	4.5	70 - 130	30	
Trichloroethene	ND	5.0	101	100	1.0	99	101	2.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	93	90	3.3	17	16	6.1	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	96	94	2.1	87	85	2.3	70 - 130	30	
Vinyl chloride	ND	5.0	95	92	3.2	89	89	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	94	%	102	102	0.0	104	102	1.9	70 - 130	30	
% Bromofluorobenzene	98	%	98	98	0.0	97	98	1.0	70 - 130	30	
% Dibromofluoromethane	104	%	102	97	5.0	96	97	1.0	70 - 130	30	
% Toluene-d8	90	%	103	103	0.0	104	104	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 405131 (ug/L), QC Sample No: BZ18023 (BZ18023 (20X))

Volatiles - SPLP

1,1,1,2-Tetrachloroethane	ND	1.0	114	117	2.6				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	111	110	0.9				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	111	111	0.0				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	109	111	1.8				70 - 130	30	
1,1-Dichloroethane	ND	1.0	110	107	2.8				70 - 130	30	
1,1-Dichloroethene	ND	1.0	111	110	0.9				70 - 130	30	
1,1-Dichloropropene	ND	1.0	111	113	1.8				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	121	126	4.0				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	103	104	1.0				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	119	122	2.5				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	105	104	1.0				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	113	126	10.9				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	106	109	2.8				70 - 130	30	
1,2-Dichloroethane	ND	1.0	110	109	0.9				70 - 130	30	
1,2-Dichloropropane	ND	1.0	108	109	0.9				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	107	108	0.9				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	107	107	0.0				70 - 130	30	
1,3-Dichloropropane	ND	1.0	104	110	5.6				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	105	106	0.9				70 - 130	30	
2,2-Dichloropropane	ND	1.0	115	113	1.8				70 - 130	30	
2-Chlorotoluene	ND	1.0	104	107	2.8				70 - 130	30	
2-Hexanone	ND	5.0	95	103	8.1				70 - 130	30	
2-Isopropyltoluene	ND	1.0	105	105	0.0				70 - 130	30	
4-Chlorotoluene	ND	1.0	105	105	0.0				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	107	111	3.7				70 - 130	30	
Acetone	ND	5.0	111	97	13.5				70 - 130	30	
Acrylonitrile	ND	5.0	99	99	0.0				70 - 130	30	
Benzene	ND	0.70	105	106	0.9				70 - 130	30	
Bromobenzene	ND	1.0	105	105	0.0				70 - 130	30	
Bromochloromethane	ND	1.0	107	108	0.9				70 - 130	30	
Bromodichloromethane	ND	0.50	114	115	0.9				70 - 130	30	
Bromoform	ND	1.0	129	133	3.1				70 - 130	30	l
Bromomethane	ND	1.0	102	105	2.9				70 - 130	30	
Carbon Disulfide	ND	1.0	113	111	1.8				70 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon tetrachloride	ND	1.0	115	113	1.8				70 - 130	30	
Chlorobenzene	ND	1.0	106	108	1.9				70 - 130	30	
Chloroethane	ND	1.0	108	104	3.8				70 - 130	30	
Chloroform	ND	1.0	107	105	1.9				70 - 130	30	
Chloromethane	ND	1.0	103	103	0.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	106	106	0.0				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	115	116	0.9				70 - 130	30	
Dibromochloromethane	ND	0.50	122	123	0.8				70 - 130	30	
Dibromomethane	ND	1.0	104	108	3.8				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	115	113	1.8				70 - 130	30	
Ethylbenzene	ND	1.0	103	106	2.9				70 - 130	30	
Hexachlorobutadiene	ND	0.40	117	112	4.4				70 - 130	30	
Isopropylbenzene	ND	1.0	105	105	0.0				70 - 130	30	
m&p-Xylene	ND	1.0	103	105	1.9				70 - 130	30	
Methyl ethyl ketone	ND	5.0	107	106	0.9				70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	117	114	2.6				70 - 130	30	
n-Butylbenzene	ND	1.0	110	107	2.8				70 - 130	30	
n-Propylbenzene	ND	1.0	107	106	0.9				70 - 130	30	
o-Xylene	ND	1.0	105	108	2.8				70 - 130	30	
p-Isopropyltoluene	ND	1.0	107	108	0.9				70 - 130	30	
sec-Butylbenzene	ND	1.0	110	110	0.0				70 - 130	30	
Styrene	ND	1.0	109	113	3.6				70 - 130	30	
tert-Butylbenzene	ND	1.0	105	105	0.0				70 - 130	30	
Tetrachloroethene	ND	1.0	110	113	2.7				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	95	97	2.1				70 - 130	30	
Toluene	ND	1.0	105	107	1.9				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	107	105	1.9				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	111	113	1.8				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	109	110	0.9				70 - 130	30	
Trichloroethene	ND	1.0	110	110	0.0				70 - 130	30	
Trichlorofluoromethane	ND	1.0	108	106	1.9				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	111	108	2.7				70 - 130	30	
Vinyl chloride	ND	1.0	112	112	0.0				70 - 130	30	
% 1,2-dichlorobenzene-d4	97	%	102	104	1.9				70 - 130	30	
% Bromofluorobenzene	97	%	101	103	2.0				70 - 130	30	
% Dibromofluoromethane	96	%	103	96	7.0				70 - 130	30	
% Toluene-d8	97	%	100	100	0.0				70 - 130	30	

Comment:

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

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

QA/QC Batch 404983 (ug/kg), QC Sample No: BZ18024 (BZ18023, BZ18024, BZ18025, BZ18026)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	57	59	3.4	48	59	20.6	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	54	56	3.6	45	57	23.5	30 - 130	30	
1,2-Dichlorobenzene	ND	180	54	55	1.8	42	58	32.0	30 - 130	30	r
1,2-Diphenylhydrazine	ND	230	61	67	9.4	51	61	17.9	30 - 130	30	
1,3-Dichlorobenzene	ND	230	50	50	0.0	37	54	37.4	30 - 130	30	r
1,4-Dichlorobenzene	ND	230	54	54	0.0	41	56	30.9	30 - 130	30	r
2,4,5-Trichlorophenol	ND	230	64	68	6.1	58	68	15.9	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	62	66	6.3	56	68	19.4	30 - 130	30	
2,4-Dichlorophenol	ND	130	61	64	4.8	54	62	13.8	30 - 130	30	
2,4-Dimethylphenol	ND	230	59	62	5.0	52	59	12.6	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dinitrophenol	ND	230	<10	<10	NC	16	29	57.8	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	67	72	7.2	58	68	15.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	65	70	7.4	58	67	14.4	30 - 130	30	
2-Chloronaphthalene	ND	230	63	67	6.2	55	67	19.7	30 - 130	30	
2-Chlorophenol	ND	230	61	61	0.0	51	63	21.1	30 - 130	30	
2-Methylnaphthalene	ND	230	56	59	5.2	46	57	21.4	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	68	66	3.0	57	68	17.6	30 - 130	30	
2-Nitroaniline	ND	330	92	99	7.3	69	80	14.8	30 - 130	30	
2-Nitrophenol	ND	230	58	60	3.4	47	57	19.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	67	68	1.5	56	66	16.4	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	73	79	7.9	32	31	3.2	30 - 130	30	
3-Nitroaniline	ND	330	77	82	6.3	60	70	15.4	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	10	<10	NC	31	35	12.1	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	63	68	7.6	52	63	19.1	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	66	69	4.4	56	65	14.9	30 - 130	30	
4-Chloroaniline	ND	230	62	65	4.7	50	55	9.5	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	62	67	7.8	54	65	18.5	30 - 130	30	
4-Nitroaniline	ND	230	67	72	7.2	57	66	14.6	30 - 130	30	
4-Nitrophenol	ND	230	65	72	10.2	58	71	20.2	30 - 130	30	
Acenaphthene	ND	230	68	73	7.1	61	73	17.9	30 - 130	30	
Acenaphthylene	ND	130	61	64	4.8	43	58	29.7	30 - 130	30	
Acetophenone	ND	230	59	58	1.7	49	61	21.8	30 - 130	30	
Aniline	ND	330	61	60	1.7	46	52	12.2	30 - 130	30	
Anthracene	ND	230	67	72	7.2	53	66	21.8	30 - 130	30	
Benz(a)anthracene	ND	230	66	69	4.4	58	50	14.8	30 - 130	30	
Benzidine	ND	330	43	48	11.0	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	63	68	7.6	76	49	43.2	30 - 130	30	r
Benzo(b)fluoranthene	ND	160	67	70	4.4	111	70	45.3	30 - 130	30	r
Benzo(ghi)perylene	ND	230	59	65	9.7	42	44	4.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	64	71	10.4	59	46	24.8	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	12	37	102.0	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	68	72	5.7	59	65	9.7	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	59	62	5.0	51	62	19.5	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	53	52	1.9	43	59	31.4	30 - 130	30	r
Bis(2-chloroisopropyl)ether	ND	230	51	52	1.9	40	52	26.1	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	66	71	7.3	62	73	16.3	30 - 130	30	
Carbazole	ND	230	68	76	11.1	57	69	19.0	30 - 130	30	
Chrysene	ND	230	68	72	5.7	62	54	13.8	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	65	70	7.4	58	56	3.5	30 - 130	30	
Dibenzofuran	ND	230	66	70	5.9	58	69	17.3	30 - 130	30	
Diethyl phthalate	ND	230	67	72	7.2	56	67	17.9	30 - 130	30	
Dimethylphthalate	ND	230	65	70	7.4	55	65	16.7	30 - 130	30	
Di-n-butylphthalate	ND	670	68	76	11.1	52	64	20.7	30 - 130	30	
Di-n-octylphthalate	ND	230	65	71	8.8	46	59	24.8	30 - 130	30	
Fluoranthene	ND	230	67	74	9.9	29	44	41.1	30 - 130	30	m,r
Fluorene	ND	230	67	70	4.4	61	72	16.5	30 - 130	30	
Hexachlorobenzene	ND	130	68	74	8.5	52	65	22.2	30 - 130	30	
Hexachlorobutadiene	ND	230	52	54	3.8	42	55	26.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	50	53	5.8	15	15	0.0	30 - 130	30	m
Hexachloroethane	ND	130	50	50	0.0	35	51	37.2	30 - 130	30	r
Indeno(1,2,3-cd)pyrene	ND	230	63	68	7.6	49	46	6.3	30 - 130	30	
Isophorone	ND	130	54	56	3.6	46	56	19.6	30 - 130	30	
Naphthalene	ND	230	57	59	3.4	44	57	25.7	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ18023

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Nitrobenzene	ND	130	61	61	0.0	50	63	23.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	50	51	2.0	40	56	33.3	30 - 130	30	r
N-Nitrosodi-n-propylamine	ND	130	64	64	0.0	52	65	22.2	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	67	73	8.6	59	68	14.2	30 - 130	30	
Pentachloronitrobenzene	ND	230	65	72	10.2	50	63	23.0	30 - 130	30	
Pentachlorophenol	ND	230	41	44	7.1	55	70	24.0	30 - 130	30	
Phenanthrene	ND	130	67	73	8.6	46	60	26.4	30 - 130	30	
Phenol	ND	230	63	64	1.6	53	63	17.2	30 - 130	30	
Pyrene	ND	230	66	74	11.4	25	43	52.9	30 - 130	30	m,r
Pyridine	ND	230	36	40	10.5	35	52	39.1	30 - 130	30	r
% 2,4,6-Tribromophenol	69	%	65	70	7.4	51	64	22.6	30 - 130	30	
% 2-Fluorobiphenyl	73	%	63	66	4.7	55	67	19.7	30 - 130	30	
% 2-Fluorophenol	52	%	58	56	3.5	47	58	21.0	30 - 130	30	
% Nitrobenzene-d5	65	%	62	60	3.3	49	62	23.4	30 - 130	30	
% Phenol-d5	61	%	66	65	1.5	53	64	18.8	30 - 130	30	
% Terphenyl-d14	74	%	69	75	8.3	53	66	21.8	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 406261 (ug/L), QC Sample No: BZ22224 (BZ18023 (400X))

Volatiles - SPLP

Naphthalene	ND	1.0	110	91	18.9				70 - 130	30	

Comment:

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

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

QA/QC Batch 406663 (mg/L), QC Sample No: BZ24079 (BZ18023)

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	77	83	7.5				30 - 130	30	
% n-Pentacosane	82	%	81	63	25.0				50 - 150	20	r

Comment:

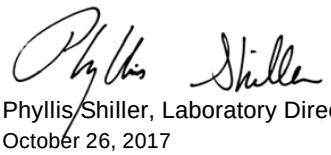
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

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.
s = This parameter is outside laboratory Blank Surrogate 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
October 26, 2017

Thursday, October 26, 2017
Criteria: CT: GBM, RC
State: CT

Sample Criteria Exceedances Report

GBZ18023 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ18023	$8260MAR	Total Xylenes	CT / RSR GB (mg/kg) / Volatiles	38000	6100	19500	19500	ug/Kg
BZ18023	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	90	90	ug/Kg
BZ18023	$8260MAR	Vinyl chloride	CT / RSR DEC RES (mg/kg) / Volatiles	ND	610	320	320	ug/Kg
BZ18023	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	610	7	7	ug/Kg
BZ18023	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	1200	40	40	ug/Kg
BZ18023	$8260MAR	Tetrahydrofuran (THF)	CT / RSR GB (mg/kg) / APS Organics	ND	3100	800	800	ug/Kg
BZ18023	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	1200	210	210	ug/Kg
BZ18023	$8260MAR	Bromomethane	CT / RSR GB (mg/kg) / APS Organics	ND	2500	700	700	ug/Kg
BZ18023	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	210000	6100	56000	56000	ug/Kg
BZ18023	$8260MAR	Carbon tetrachloride	CT / RSR GB (mg/kg) / Volatiles	ND	1200	1000	1000	ug/Kg
BZ18023	$8260MAR	Vinyl chloride	CT / RSR GB (mg/kg) / Volatiles	ND	610	400	400	ug/Kg
BZ18023	$8260MAR	Tetrachloroethene	CT / RSR GB (mg/kg) / Volatiles	ND	1200	1000	1000	ug/Kg
BZ18023	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	6100	1000	1000	ug/Kg
BZ18023	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	1200	100	100	ug/Kg
BZ18023	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	610	100	100	ug/Kg
BZ18023	$8260MAR	Ethylbenzene	CT / RSR GB (mg/kg) / Volatiles	21000	6100	10100	10100	ug/Kg
BZ18023	$8260MAR	1,1,2-Trichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1200	1000	1000	ug/Kg
BZ18023	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1200	200	200	ug/Kg
BZ18023	$8260MAR	1,2-Dichloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	610	200	200	ug/Kg
BZ18023	$8260MAR	1,2-Dichloropropane	CT / RSR GB (mg/kg) / Volatiles	ND	1200	1000	1000	ug/Kg
BZ18023	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	610	100	100	ug/Kg
BZ18023	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	ND	610	200	200	ug/Kg
BZ18023	$8260MAR	Bromoform	CT / RSR GB (mg/kg) / Volatiles	ND	1200	800	800	ug/Kg
BZ18023	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	1200	100	100	ug/Kg
BZ18023	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2200	900	900	ug/Kg
BZ18023	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	200	200	ug/Kg
BZ18023	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18023	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3200	3100	3100	ug/Kg
BZ18023	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3300	1400	1400	ug/Kg
BZ18023	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1900	200	200	ug/Kg
BZ18023	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	770	770	ug/Kg
BZ18023	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2700	900	900	ug/Kg
BZ18023	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2200	200	200	ug/Kg
BZ18023	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1900	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	8300	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	8900	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1400	1400	ug/Kg
BZ18023	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1400	1400	ug/Kg

Thursday, October 26, 2017
Criteria: CT: GBM, RC
State: CT

Sample Criteria Exceedances Report

GBZ18023 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ18023	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2100	1400	1400	ug/Kg
BZ18023	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	8300	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3300	1000	1000	ug/Kg
BZ18023	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18023	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18023	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ18023	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1900	1000	1000	ug/Kg
BZ18023	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18023	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	4800	2000	2000	ug/Kg
BZ18023	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ18023	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18023	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18023	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3500	2800	2800	ug/Kg
BZ18023	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1000	1000	ug/Kg
BZ18023	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18023	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	50000	4800	5600	5600	ug/Kg
BZ18023	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	4800	2000	2000	ug/Kg
BZ18023	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3500	2000	2000	ug/Kg
BZ18023	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ18023	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3200	1000	1000	ug/Kg
BZ18023	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2300	2000	2000	ug/Kg
BZ18023	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1200	1200	ug/Kg
BZ18023	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2100	1000	1000	ug/Kg
BZ18023	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ18023	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	53000	4800	40000	40000	ug/Kg
BZ18023	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	8900	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	8300	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ18023	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	4800	1000	1000	ug/Kg
BZ18023	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	150000	4800	56000	56000	ug/Kg
BZ18023	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4600	510	500	500	mg/Kg
BZ18023	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4600	510	2500	2500	mg/Kg
BZ18024	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1800	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2600	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2400	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1800	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1800	260	1000	1000	ug/Kg

Thursday, October 26, 2017
Criteria: CT: GBM, RC
State: CT

Sample Criteria Exceedances Report

GBZ18023 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ18024	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2000	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2400	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2600	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
BZ18024	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1800	260	1000	1000	ug/Kg
BZ18025	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1100	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1200	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1300	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1100	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1300	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1100	270	1000	1000	ug/Kg
BZ18025	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1100	270	1000	1000	ug/Kg
BZ18026	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2300	200	200	ug/Kg
BZ18026	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	200	200	ug/Kg
BZ18026	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	17000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3300	1400	1400	ug/Kg
BZ18026	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2000	200	200	ug/Kg
BZ18026	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2200	900	900	ug/Kg
BZ18026	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	900	900	ug/Kg
BZ18026	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3300	3100	3100	ug/Kg
BZ18026	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	13000	4900	8400	8400	ug/Kg
BZ18026	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2800	770	770	ug/Kg
BZ18026	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	24000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	26000	4900	8400	8400	ug/Kg
BZ18026	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	28000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	33000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ18026	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	29000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18026	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1400	1400	ug/Kg
BZ18026	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	17000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2500	1000	1000	ug/Kg
BZ18026	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1000	1000	ug/Kg
BZ18026	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg

Thursday, October 26, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ18023 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ18026	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2100	1400	1400	ug/Kg
BZ18026	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ18026	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1400	1400	ug/Kg
BZ18026	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	4900	2000	2000	ug/Kg
BZ18026	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ18026	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18026	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18026	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3500	2800	2800	ug/Kg
BZ18026	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18026	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1000	1000	ug/Kg
BZ18026	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	4900	2000	2000	ug/Kg
BZ18026	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3300	1000	1000	ug/Kg
BZ18026	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3300	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	13000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3500	2000	2000	ug/Kg
BZ18026	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2300	2000	2000	ug/Kg
BZ18026	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1200	1200	ug/Kg
BZ18026	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1000	1000	ug/Kg
BZ18026	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2100	1000	1000	ug/Kg
BZ18026	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	33000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	28000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	24000	4900	1000	1000	ug/Kg
BZ18026	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2700	1000	1000	ug/Kg
BZ18026	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	49000	4900	40000	40000	ug/Kg
BZ18026	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	26000	4900	1000	1000	ug/Kg
BZ18026	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	2000	270	500	500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MCP ***Project Number:***

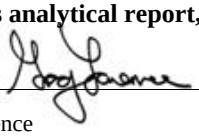
Laboratory Sample ID(s): BZ18023-BZ18026 ***Sampling Date(s):*** 10/9/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Thursday, October 26, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 26, 2017

SDG I.D.: GBZ18023

SDG Comments

Due to the concentration of target and/or non-target compounds, not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 10/10/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/10/17

BZ18023, BZ18024, BZ18025, BZ18026

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

LACHAT 10/12/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/12/17

BZ18024, BZ18025, BZ18026

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 404906 (BZ17773)

BZ18023, BZ18024, BZ18025, BZ18026

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

Batch 405206 (BZ18923)

BZ18024, BZ18025, BZ18026

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents 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

RCP Certification Report

October 26, 2017

SDG I.D.: GBZ18023

ETPH Narration

AU-FID1 10/11/17-1 Jeff Bucko, Chemist 10/11/17

BZ18024, BZ18025, BZ18026

The initial calibration (ETPH912I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 10/24/17-1 Jeff Bucko, Chemist 10/24/17

BZ18023

The initial calibration (ETPH930I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 10/12/17-1 Jeff Bucko, Chemist 10/12/17

BZ18023

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

QC (Batch Specific):

Batch 404988 (BZ17878)

BZ18023, BZ18024, BZ18025, BZ18026

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

Batch 406663 (BZ24079)

BZ18023

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: % n-Pentacosane(25.0%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

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

Instrument:

MERLIN 10/10/17 07:51 Rick Schweitzer, Chemist 10/10/17

BZ18023, BZ18024, BZ18026

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

MERLIN 10/11/17 07:38 Rick Schweitzer, Chemist 10/11/17

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October 26, 2017

SDG I.D.: GBZ18023

Mercury Narration

BZ18023, BZ18024

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

MERLIN 10/12/17 09:35 Rick Schweitzer, Chemist 10/12/17

BZ18025, BZ18026

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 404940 (BZ17792)

BZ18023, BZ18024, BZ18026

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

Batch 405086 (BZ18800)

BZ18023, BZ18024

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

Batch 405243 (BZ19047)

BZ18025, BZ18026

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

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October 26, 2017

SDG I.D.: GBZ18023

Mercury Narration

125%.

ICP Metals Narration

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

QC Batch 404875 (Samples: BZ18023, BZ18024, BZ18025, BZ18026): -----

The Sample/Duplicate RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (Lead)

Instrument:

ARCOS 10/11/17 06:19 Mike Arsenault, Chemist 10/11/17

BZ18023, BZ18024, BZ18025, BZ18026

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

ARCOS 10/12/17 08:17 Mike Arsenault, Chemist 10/12/17

BZ18024, BZ18025, BZ18026

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

BLUE 10/11/17 07:19 Mike Arsenault, Chemist 10/11/17

BZ18023, BZ18024, BZ18026

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

BLUE 10/16/17 07:09 Mike Arsenault, Chemist 10/16/17

BZ18023, BZ18024, BZ18026

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

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October 26, 2017

SDG I.D.: GBZ18023

ICP Metals Narration

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

QC (Batch Specific):

Batch 404875 (BZ17960)

BZ18023, BZ18024, BZ18025, BZ18026

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

Batch 404939 (BZ17649)

BZ18023, BZ18024, BZ18026

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

SVOA Narration

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

QC Batch 404983 (Samples: BZ18023, BZ18024, BZ18025, BZ18026): -----

The LCS/LCSD recovery is below the method criteria. The site specific MS recovery is below the lower range but within the method criteria. The MSD is acceptable. A slight low bias is possible. (Benzoic Acid)

The LCS/LCSD recovery is below the method criteria. The site specific MS/MSD recovery is acceptable. No significant bias is suspected. (4,6-Dinitro-2-methylphenol)

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Benzidine, Hexachlorocyclopentadiene)

The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4-Dinitrophenol, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzoic Acid, Bis(2-chloroethyl)ether, Fluoranthene, Hexachloroethane, N-Nitrosodimethylamine, Pyrene, Pyridine)

The LCS/LCSD recovery is below the method criteria. The site specific MS/MSD recovery is below the lower range, but within the method criteria. A slight low bias is possible. (2,4-Dinitrophenol)

Instrument:

CHEM06 10/11/17-1 Damien Drobinski, Chemist 10/11/17

BZ18023, BZ18026

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

Initial Calibration Verification (CHEM06/SPLIT_1006):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.064 (0.1), Hexachlorobenzene 0.079 (0.1)

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SVOA Narration

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

Continuing Calibration Verification (CHEM06/1011_02-SPLIT_1006):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.062 (0.1), Hexachlorobenzene 0.078 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 10/11/17-1 Damien Drobinski, Chemist 10/11/17

BZ18024, BZ18025

Initial Calibration Verification (CHEM29/SPLIT_1008):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 25% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.089 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/1010_05-SPLIT_1008):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.088 (0.1), Hexachlorobenzene 0.099 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 405020 (BZ17320)

BZ18023

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: 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 404983 (BZ18024)

BZ18023, BZ18024, BZ18025, BZ18026

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

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October 26, 2017

SDG I.D.: GBZ18023

SVOA Narration

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(16%), Benzidine(<10%), Benzoic Acid(12%), Fluoranthene(29%), Hexachlorocyclopentadiene(15%), Pyrene(25%)
All MSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(29%), Benzidine(<10%), Hexachlorocyclopentadiene(15%)
All MS/MSD RPDs were less than 30% with the following exceptions: 1,2-Dichlorobenzene(32.0%), 1,3-Dichlorobenzene(37.4%), 1,4-Dichlorobenzene(30.9%), 2,4-Dinitrophenol(57.8%), Benzo(a)pyrene(43.2%), Benzo(b)fluoranthene(45.3%), Benzoic Acid(102.0%), Bis(2-chloroethyl)ether(31.4%), Fluoranthene(41.1%), Hexachloroethane(37.2%), N-Nitrosodimethylamine(33.3%), Pyrene(52.9%), Pyridine(39.1%)
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 405131 (Samples: BZ18023): -----

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Bromoform)

Instrument:

CHEM17 10/10/17-1 Michael Hahn, Chemist 10/10/17

BZ18023

Initial Calibration Verification (CHEM17/VT-S1005):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromomethane 30% (20%), trans-1,4-dichloro-2-butene 29% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.034 (0.05), 2-Hexanone 0.068 (0.1), 4-Methyl-2-pentanone 0.085 (0.1), Acetone 0.047 (0.1), Bromoform 0.070 (0.1), Methyl ethyl ketone 0.062 (0.1), Tetrahydrofuran (THF) 0.042 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1010_02-VT-S1005):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.040 (0.05), Bromoform 0.089 (0.1), Tetrahydrofuran (THF) 0.039 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 10/18/17-1 Harry Mullin, Chemist 10/18/17

BZ18023

Initial Calibration Verification (CHEM17/VT-S1012):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

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October 26, 2017

SDG I.D.: GBZ18023

VOA Narration

Continuing Calibration Verification (CHEM17/1018_02-VT-S1012):
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.

CHEM18 10/10/17-1 Jane Li, Chemist 10/10/17

BZ18023, BZ18024, BZ18025, BZ18026

Initial Calibration Verification (CHEM18/VT-M1005):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Chloroethane 24% (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 (CHEM18/1010M02-VT-M1005):
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 405131 (BZ18023)

BZ18023

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromoform(133%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 405145 (BZ18019)

BZ18023, BZ18024, BZ18025, BZ18026

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

Batch 406261 (BZ22224)

BZ18023

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.

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October 26, 2017

SDG I.D.: GBZ18023

VOA Narration

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

Temperature Narration

The samples were received at 4.4C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 4.0 °C Pg 1 of 1

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Client Services (860) 645-8726

Data Delivery:
[ ] Fax #:
[X] Email: LHurley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown CT

Project: Rocky Hill MCP
Report to: Lynn Hurley
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O.: 140-7552.44

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 10/9/17

Analysis Request

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	SVOC	ETPH	RCRA metals	SPLP metals	total cyanide	SPLP PAH	SPLP VOC (TCLP)	TCLP cyanide	SPLP cyanide (SPLP)	Soil VOA Vials MeOH [ ] H2O	GL Soil container ( ) oz	40 ml VOA Vial [ ] oz	GL Amber 1000ml [ ] As is [ ] HCl	PL As is [ ] H2SO4	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)	Encore 25g
18023	SB-1 (19-20)	S	10/9/17	9:45	X	X	X	X	X	X	X	X					3	1							1
18024	TP-1 (5-7)	"	"	10:05	X	X	X	X	X	X			X	X			3	1							
18025	TP-2 (7-9)	"	"	11:45	X	X	X	X		X			X	X			3	1							
18026	TP-3 (2-3)	"	"	14:45	X	X	X	X	X	X			X	X			3	1							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	10/9/17	1715

Comments, Special Requirements or Regulations:
DAS Pricing
250gm Encore for SB-1 (19-20)

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

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

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

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

State where samples were collected: CT

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

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Cooler: Yes No
Coolant: Ice Blue Temp. 4.0°C Pg 1 of 1

Data Delivery:
Fax #:
Email: [illegible]

Customer: Right + Sky
Address: 213 Cedar St
Middletown CT

Project:
Report to:
Invoice to: Right + Sky
Phone #:
Fax #:

Project P.O.: 140 75 2174

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [illegible] Date:

Client Simple - Information - Identification

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

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
18023	SB-1 (19-20)	S	10/9/17	9:45
18024	TP-1 (5-7)			10:05
18025	TP-2 (7-9)			11:45
18026	TP-3 (03)			12:45

Analysis Request

VOCs 5260
Target VOC (PCE)
EDB 504.1
1,4-Dioxane 8270
PCB 8082
RCRA 8 Metals
Cr, Pb
Soil VOA Vials Methanol
40 ml VOA Vials
Cr, Soil Container
Cr, Amber 100ml
Pt. As is [illegible] 125ml
Pt. As is [illegible] 250ml
Pt. As is [illegible] 500ml
Pt. HCl [illegible] 100ml
Pt. H2SO4 [illegible] 125ml
Pt. HNO3 250ml
Pt. NaOH 250ml
Bacteria (as is)
Bacteria (w/thio)

PHOENIX USE ONLY SAMPLE #	VOCs 5260	Target VOC (PCE)	EDB 504.1	1,4-Dioxane 8270	PCB 8082	RCRA 8 Metals	Soil VOA Vials Methanol	40 ml VOA Vials	Cr, Soil Container	Cr, Amber 100ml	Pt. As is [illegible] 125ml	Pt. As is [illegible] 250ml	Pt. As is [illegible] 500ml	Pt. HCl [illegible] 100ml	Pt. H2SO4 [illegible] 125ml	Pt. HNO3 250ml	Pt. NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
18023	X	X	X	X	X	X												3	1
18024	X	X	X	X	X	X												3	1
18025	X	X	X	X	X	X												3	1
18026	X	X	X	X	X	X												3	1

Relinquished by: [illegible] Date: 10/9/17 Time: 17:15
Accepted by: [signature]

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

Direct Exposure (Residential)
GW
Other

GB
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
GISKey
EQuIS
Other [illegible]

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

* SURCHARGE APPLIES

Comments, Special Requirements or Regulations:
DAS Pricing
2 Room Tenure for SB-1 (19-20)

Page 49 of 49

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Friday, October 20, 2017 2:33 PM
To: Client Services
Subject: SPLP ETPH request
Attachments: SKMBT_C65417102014280.pdf

Hi Sarah:

I need to activate the following samples for SPLP ETPH.

SB-18 (19-20) Phoenix I.D.: BZ18023
SB-19 (12-14 FT) Phoenix ID: BZ19753

Thank U.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

PHOENIX
Environmental Laboratories, Inc.

Wednesday, October 18, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID:
Sample ID#s: BZ19753

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

October 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	DC	10/11/17	13:45
Location Code:	TIGHE-DAS	Received by:	DL	10/11/17	19:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0775-044				

Laboratory Data

SDG ID: GBZ19753
Phoenix ID: BZ19753

Project ID:
Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Arsenic	1.31	0.72	mg/Kg	1	10/13/17	TH	SW6010C
Barium	40.8	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Beryllium	0.45	0.29	mg/Kg	1	10/13/17	TH	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Chromium	9.58	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Copper	12.0	0.36	mg/kg	1	10/13/17	TH	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/12/17	RS	SW7471B
Nickel	7.73	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Lead	4.28	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	10/13/17	TH	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	10/13/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/12/17	MA	SW6010C
SPLP Barium	0.024	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/12/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/12/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/12/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/12/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/12/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/12/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/12/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	10/13/17	TH	SW6010C

Ver 1

Project ID: Phoenix I.D.: BZ19753

Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/12/17	/W	SW3005A
Vanadium	22.4	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Zinc	15.0	0.36	mg/Kg	1	10/13/17	TH	SW6010C
Percent Solid	88		%		10/11/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.52	0.52	mg/Kg	1	10/13/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				10/12/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/12/17	MC/VCK	SW3545A
Mercury Digestion	Completed				10/12/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/12/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/11/17	W	SW1312
SPLP Extraction for Organics	Completed				10/11/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				10/12/17	P/I	SW3510C/SW3520C
Total Metals Digest	Completed				10/11/17	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	8800	560	mg/Kg	10	10/16/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	10/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	10/16/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,2,4-Trimethylbenzene	890	790	ug/Kg	250	10/13/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	160	ug/Kg	250	10/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	250	10/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,3-Dichloropropane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
2,2-Dichloropropane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
2-Chlorotoluene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
2-Hexanone	ND	7000	ug/Kg	250	10/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
4-Chlorotoluene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	7900	ug/Kg	250	10/13/17	JLI	SW8260C
Acetone	ND	79000	ug/Kg	250	10/13/17	JLI	SW8260C
Acrylonitrile	ND	160	ug/Kg	250	10/13/17	JLI	SW8260C
Benzene	ND	200	ug/Kg	250	10/13/17	JLI	SW8260C

Ver 1

Project ID:
Phoenix I.D.: BZ19753

Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Bromochloromethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Bromodichloromethane	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
Bromoform	ND	800	ug/Kg	250	10/13/17	JLI	SW8260C
Bromomethane	ND	700	ug/Kg	250	10/13/17	JLI	SW8260C
Carbon Disulfide	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Carbon tetrachloride	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
Chlorobenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Chloroethane	ND	1500	ug/Kg	250	10/13/17	JLI	SW8260C
Chloroform	ND	1200	ug/Kg	250	10/13/17	JLI	SW8260C
Chloromethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Dibromochloromethane	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
Dibromomethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Ethylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	1500	ug/Kg	250	10/13/17	JLI	SW8260C
Isopropylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
m&p-Xylene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	9500	ug/Kg	250	10/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	3200	ug/Kg	250	10/13/17	JLI	SW8260C
Methylene chloride	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Naphthalene	6100	1600	ug/Kg	250	10/13/17	JLI	SW8260C
n-Butylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
n-Propylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
o-Xylene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
sec-Butylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Styrene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
tert-Butylbenzene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Tetrachloroethene	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	800	ug/Kg	250	10/13/17	JLI	SW8260C
Toluene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Total Xylenes	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	3200	ug/Kg	250	10/13/17	JLI	SW8260C
Trichloroethene	ND	1000	ug/Kg	250	10/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	1600	ug/Kg	250	10/13/17	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	250	10/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	250	10/13/17	JLI	70 - 130 %
% Bromofluorobenzene	114		%	250	10/13/17	JLI	70 - 130 %
% Dibromofluoromethane	91		%	250	10/13/17	JLI	70 - 130 %
% Toluene-d8	99		%	250	10/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	10/13/17	DD	SW8270D

Ver 1

Project ID: Phoenix I.D.: BZ19753

Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1200	ug/Kg	10	10/13/17	DD	SW8270D
2,4-Dichlorophenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2,4-Dimethylphenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	10/13/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1200	ug/Kg	10	10/13/17	DD	SW8270D
2-Chloronaphthalene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2-Chlorophenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2-Methylnaphthalene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2-Nitroaniline	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
2-Nitrophenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3700	ug/Kg	10	10/13/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1800	ug/Kg	10	10/13/17	DD	SW8270D
3-Nitroaniline	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	10/13/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	3700	ug/Kg	10	10/13/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
4-Chloroaniline	ND	1700	ug/Kg	10	10/13/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	10/13/17	DD	SW8270D
4-Nitrophenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Acenaphthene	4000	2600	ug/Kg	10	10/13/17	DD	SW8270D
Acenaphthylene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Acetophenone	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Aniline	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
Anthracene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benz(a)anthracene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benzidine	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
Benzo(a)pyrene	4000	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benzo(b)fluoranthene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benzo(ghi)perylene	3400	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benzo(k)fluoranthene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Benzoic acid	ND	7500	ug/Kg	10	10/13/17	DD	SW8270D
Benzyl butyl phthalate	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	10/13/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	10/13/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Carbazole	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
Chrysene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	1200	ug/Kg	10	10/13/17	DD	SW8270D
Dibenzofuran	ND	1100	ug/Kg	10	10/13/17	DD	SW8270D

Project ID:
Phoenix I.D.: BZ19753
Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Dimethylphthalate	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Di-n-butylphthalate	ND	7500	ug/Kg	10	10/13/17	DD	SW8270D
Di-n-octylphthalate	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Fluoranthene	3200	2600	ug/Kg	10	10/13/17	DD	SW8270D
Fluorene	3300	2600	ug/Kg	10	10/13/17	DD	SW8270D
Hexachlorobenzene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	10/13/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Hexachloroethane	ND	1100	ug/Kg	10	10/13/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	3200	2600	ug/Kg	10	10/13/17	DD	SW8270D
Isophorone	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Naphthalene	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Nitrobenzene	ND	1300	ug/Kg	10	10/13/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1100	ug/Kg	10	10/13/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1200	ug/Kg	10	10/13/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1400	ug/Kg	10	10/13/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	10/13/17	DD	SW8270D
Pentachlorophenol	ND	1400	ug/Kg	10	10/13/17	DD	SW8270D
Phenanthrene	7200	2600	ug/Kg	10	10/13/17	DD	SW8270D
Phenol	ND	2600	ug/Kg	10	10/13/17	DD	SW8270D
Pyrene	6200	2600	ug/Kg	10	10/13/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	10	10/13/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	119		%	10	10/13/17	DD	30 - 130 %
% 2-Fluorobiphenyl	80		%	10	10/13/17	DD	30 - 130 %
% 2-Fluorophenol	54		%	10	10/13/17	DD	30 - 130 %
% Nitrobenzene-d5	64		%	10	10/13/17	DD	30 - 130 %
% Phenol-d5	61		%	10	10/13/17	DD	30 - 130 %
% Terphenyl-d14	66		%	10	10/13/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	0.35	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Acenaphthene	4.9	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Acenaphthylene	0.73	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Anthracene	0.85	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.29	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.24	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.17	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	0.34	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.17	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Chrysene	0.32	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.05	0.01	ug/L	1	10/13/17	DD	SW8270D (SIM)
Fluoranthene	0.91	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Fluorene	2.8	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.19	0.02	ug/L	1	10/13/17	DD	SW8270D (SIM)
Naphthalene	1.9	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
Phenanthrene	3.9	0.07	ug/L	1	10/13/17	DD	SW8270D (SIM)
Pyrene	1.3	0.10	ug/L	1	10/13/17	DD	SW8270D (SIM)
QA/QC Surrogates							

Project ID: Phoenix I.D.: BZ19753

Client ID: SB-19 (12-14 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorobiphenyl	63		%	1	10/13/17	DD	30 - 130 %
% Nitrobenzene-d5	58		%	1	10/13/17	DD	30 - 130 %
% Terphenyl-d14	68		%	1	10/13/17	DD	30 - 130 %
Field Extraction	Completed				10/11/17		SW5035A

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

Comments:

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

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.

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.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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.
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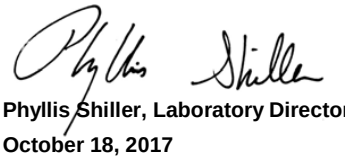

Phyllis Shiller, Laboratory Director
October 18, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

October 18, 2017

QA/QC Data

SDG I.D.: GBZ19753

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 405250 (mg/L), QC Sample No: BZ09188 (BZ19753)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	108			111			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	108			112			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	106			109			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	107			110			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	107			108			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	105			108			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	105			109			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	107			108			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	109			110			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	110			114			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	96.9			100			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	106			109			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	104			107			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	107			110			75 - 125	20	
QA/QC Batch 405244 (mg/kg), QC Sample No: BZ18257 (BZ19753)														
Mercury - Soil	BRL	0.03	0.21	0.31	38.5	94.1	89.1	5.5	93.7			70 - 130	30	r
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 405245 (mg/L), QC Sample No: BZ18680 (BZ19753)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	111			92.4			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 405215 (mg/kg), QC Sample No: BZ19457 (BZ19753)														
ICP Metals - Soil														
Antimony	BRL	3.4	<1.9	<3.4	NC	94.7			89.5			75 - 125	30	
Arsenic	BRL	0.68	1.73	1.80	NC	93.4			91.1			75 - 125	30	
Barium	BRL	0.34	51.8	48.6	6.40	94.6			101			75 - 125	30	
Beryllium	BRL	0.27	0.50	0.41	NC	92.4			97.2			75 - 125	30	
Cadmium	BRL	0.34	<0.37	<0.34	NC	96.5			95.9			75 - 125	30	
Chromium	BRL	0.34	50.8	32.2	44.8	93.7			90.1			75 - 125	30	r
Copper	BRL	0.34	31.4	22.1	34.8	84.5			109			75 - 125	30	r
Lead	BRL	0.34	2.9	3.71	NC	101			100			75 - 125	30	
Nickel	BRL	0.34	19.6	16.0	20.2	97.5			95.5			75 - 125	30	
Selenium	BRL	1.4	<1.5	<1.4	NC	92.3			81.2			75 - 125	30	
Silver	BRL	0.34	<0.37	<0.34	NC	89.1			104			75 - 125	30	
Thallium	BRL	3.0	<1.5	<3.1	NC	102			101			75 - 125	30	
Vanadium	BRL	0.34	57.4	42.5	29.8	84.4			91.5			75 - 125	30	
Zinc	BRL	0.34	33.8	30.1	11.6	97.0			96.6			75 - 125	30	

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

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QA/QC Report

October 18, 2017

QA/QC Data

SDG I.D.: GBZ19753

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 405402 (mg/Kg), QC Sample No: BZ19753 50X (BZ19753)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.52	<0.57	NC	95.7			98.5			80 - 120	30

Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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QA/QC Report

October 18, 2017

QA/QC Data

SDG I.D.: GBZ19753

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 405330 (mg/Kg), QC Sample No: BZ19141 (BZ19753)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	88			94	87	7.7	60 - 120	30	
% n-Pentacosane	66	%	64			83	79	4.9	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 405719 (ug/kg), QC Sample No: BZ19339 (BZ19753 (250X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	125	128	2.4	113	101	11.2	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	119	119	0.0	111	101	9.4	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	114	116	1.7	101	89	12.6	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	112	114	1.8	105	92	13.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	117	119	1.7	112	101	10.3	70 - 130	30	
1,1-Dichloroethene	ND	5.0	107	110	2.8	102	91	11.4	70 - 130	30	
1,1-Dichloropropene	ND	5.0	115	117	1.7	115	103	11.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	111	124	11.1	130	120	8.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	107	106	0.9	96	81	16.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	104	115	10.0	121	112	7.7	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	109	117	7.1	109	100	8.6	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	116	120	3.4	100	96	4.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	115	116	0.9	108	92	16.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	108	117	8.0	107	96	10.8	70 - 130	30	
1,2-Dichloroethane	ND	5.0	111	113	1.8	105	93	12.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	117	117	0.0	111	98	12.4	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	112	119	6.1	109	101	7.6	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	109	116	6.2	109	99	9.6	70 - 130	30	
1,3-Dichloropropane	ND	5.0	107	110	2.8	101	89	12.6	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	106	115	8.1	106	97	8.9	70 - 130	30	
2,2-Dichloropropane	ND	5.0	124	127	2.4	115	104	10.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	114	120	5.1	110	103	6.6	70 - 130	30	
2-Hexanone	ND	25	92	91	1.1	83	69	18.4	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	109	115	5.4	105	98	6.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	110	119	7.9	110	100	9.5	70 - 130	30	
4-Methyl-2-pentanone	ND	25	99	96	3.1	85	69	20.8	70 - 130	30	m
Acetone	ND	10	83	83	0.0	57	43	28.0	70 - 130	30	m
Acrylonitrile	ND	5.0	97	96	1.0	93	78	17.5	70 - 130	30	
Benzene	ND	1.0	116	118	1.7	111	99	11.4	70 - 130	30	
Bromobenzene	ND	5.0	113	119	5.2	108	99	8.7	70 - 130	30	
Bromochloromethane	ND	5.0	111	113	1.8	103	92	11.3	70 - 130	30	
Bromodichloromethane	ND	5.0	126	128	1.6	109	96	12.7	70 - 130	30	
Bromoform	ND	5.0	127	133	4.6	101	85	17.2	70 - 130	30	l
Bromomethane	ND	5.0	90	91	1.1	46	47	2.2	70 - 130	30	m

QA/QC Data

SDG I.D.: GBZ19753

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	5.0	116	119	2.6	83	80	3.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	124	126	1.6	110	98	11.5	70 - 130	30	
Chlorobenzene	ND	5.0	113	116	2.6	109	97	11.7	70 - 130	30	
Chloroethane	ND	5.0	90	91	1.1	16	15	6.5	70 - 130	30	m
Chloroform	ND	5.0	115	113	1.8	102	91	11.4	70 - 130	30	
Chloromethane	ND	5.0	77	78	1.3	86	75	13.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	114	118	3.4	110	97	12.6	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	130	132	1.5	118	104	12.6	70 - 130	30	l
Dibromochloromethane	ND	3.0	130	136	4.5	112	99	12.3	70 - 130	30	l
Dibromomethane	ND	5.0	115	118	2.6	105	91	14.3	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	75	79	5.2	102	90	12.5	70 - 130	30	
Ethylbenzene	ND	1.0	110	115	4.4	109	97	11.7	70 - 130	30	
Hexachlorobutadiene	ND	5.0	114	127	10.8	121	111	8.6	70 - 130	30	
Isopropylbenzene	ND	1.0	118	124	5.0	116	104	10.9	70 - 130	30	
m&p-Xylene	ND	2.0	111	117	5.3	109	99	9.6	70 - 130	30	
Methyl ethyl ketone	ND	5.0	90	90	0.0	84	68	21.1	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	114	116	1.7	110	94	15.7	70 - 130	30	
Methylene chloride	ND	5.0	90	92	2.2	84	75	11.3	70 - 130	30	
Naphthalene	ND	5.0	125	136	8.4	153	134	13.2	70 - 130	30	l,m
n-Butylbenzene	ND	1.0	109	120	9.6	115	105	9.1	70 - 130	30	
n-Propylbenzene	ND	1.0	112	119	6.1	112	103	8.4	70 - 130	30	
o-Xylene	ND	2.0	118	122	3.3	115	103	11.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	114	124	8.4	115	106	8.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	118	127	7.3	117	108	8.0	70 - 130	30	
Styrene	ND	5.0	115	119	3.4	111	99	11.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	118	124	5.0	114	104	9.2	70 - 130	30	
Tetrachloroethene	ND	5.0	114	117	2.6	109	94	14.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	93	93	0.0	85	70	19.4	70 - 130	30	
Toluene	ND	1.0	116	116	0.0	110	99	10.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	111	115	3.5	108	97	10.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	125	129	3.1	110	96	13.6	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	125	127	1.6	107	90	17.3	70 - 130	30	
Trichloroethene	ND	5.0	117	118	0.9	113	101	11.2	70 - 130	30	
Trichlorofluoromethane	ND	5.0	80	84	4.9	15	15	0.0	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	94	100	6.2	100	88	12.8	70 - 130	30	
Vinyl chloride	ND	5.0	83	84	1.2	80	73	9.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	96	%	100	102	2.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	98	%	100	100	0.0	99	101	2.0	70 - 130	30	
% Dibromofluoromethane	93	%	102	103	1.0	98	99	1.0	70 - 130	30	
% Toluene-d8	96	%	101	100	1.0	101	101	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 405322 (ug/kg), QC Sample No: BZ20005 (BZ19753)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	68	69	1.5	61	56	8.5	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	62	67	7.8	55	52	5.6	30 - 130	30	
1,2-Dichlorobenzene	ND	180	59	62	5.0	48	46	4.3	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	82	81	1.2	76	67	12.6	30 - 130	30	
1,3-Dichlorobenzene	ND	230	56	60	6.9	44	43	2.3	30 - 130	30	
1,4-Dichlorobenzene	ND	230	59	62	5.0	46	45	2.2	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	75	74	1.3	65	61	6.3	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	70	73	4.2	62	56	10.2	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ19753

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dichlorophenol	ND	130	71	72	1.4	62	57	8.4	30 - 130	30	
2,4-Dimethylphenol	ND	230	72	73	1.4	64	58	9.8	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	49	34	36.1	30 - 130	30	l,r
2,4-Dinitrotoluene	ND	130	77	76	1.3	68	61	10.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	79	77	2.6	69	63	9.1	30 - 130	30	
2-Chloronaphthalene	ND	230	70	71	1.4	64	60	6.5	30 - 130	30	
2-Chlorophenol	ND	230	65	69	6.0	57	52	9.2	30 - 130	30	
2-Methylnaphthalene	ND	230	65	67	3.0	61	55	10.3	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	73	76	4.0	67	60	11.0	30 - 130	30	
2-Nitroaniline	ND	330	128	125	2.4	116	104	10.9	30 - 130	30	
2-Nitrophenol	ND	230	69	78	12.2	62	59	5.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	75	76	1.3	68	62	9.2	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	82	83	1.2	59	60	1.7	30 - 130	30	
3-Nitroaniline	ND	330	91	91	0.0	75	70	6.9	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	60	46	26.4	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	79	76	3.9	68	63	7.6	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	79	79	0.0	71	62	13.5	30 - 130	30	
4-Chloroaniline	ND	230	79	81	2.5	65	61	6.3	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	75	74	1.3	66	62	6.3	30 - 130	30	
4-Nitroaniline	ND	230	82	84	2.4	76	68	11.1	30 - 130	30	
4-Nitrophenol	ND	230	76	72	5.4	71	64	10.4	30 - 130	30	
Acenaphthene	ND	230	76	76	0.0	68	64	6.1	30 - 130	30	
Acenaphthylene	ND	130	72	71	1.4	59	55	7.0	30 - 130	30	
Acetophenone	ND	230	66	69	4.4	58	53	9.0	30 - 130	30	
Aniline	ND	330	56	59	5.2	50	43	15.1	30 - 130	30	
Anthracene	ND	230	77	75	2.6	47	41	13.6	30 - 130	30	
Benz(a)anthracene	ND	230	79	76	3.9	39	32	19.7	30 - 130	30	
Benzidine	ND	330	41	42	2.4	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	74	73	1.4	38	31	20.3	30 - 130	30	
Benzo(b)fluoranthene	ND	160	77	77	0.0	49	36	30.6	30 - 130	30	r
Benzo(ghi)perylene	ND	230	70	70	0.0	43	36	17.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	76	76	0.0	44	39	12.0	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	27	18	40.0	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	85	83	2.4	75	66	12.8	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	72	75	4.1	61	56	8.5	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	60	64	6.5	49	45	8.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	66	69	4.4	56	51	9.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	86	84	2.4	72	65	10.2	30 - 130	30	
Carbazole	ND	230	79	76	3.9	65	58	11.4	30 - 130	30	
Chrysene	ND	230	78	75	3.9	42	35	18.2	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	77	74	4.0	63	51	21.1	30 - 130	30	
Dibenzofuran	ND	230	74	73	1.4	66	61	7.9	30 - 130	30	
Diethyl phthalate	ND	230	79	77	2.6	68	62	9.2	30 - 130	30	
Dimethylphthalate	ND	230	76	75	1.3	66	61	7.9	30 - 130	30	
Di-n-butylphthalate	ND	670	83	82	1.2	64	61	4.8	30 - 130	30	
Di-n-octylphthalate	ND	230	88	85	3.5	73	67	8.6	30 - 130	30	
Fluoranthene	ND	230	78	74	5.3	<10	<10	NC	30 - 130	30	m
Fluorene	ND	230	76	76	0.0	64	56	13.3	30 - 130	30	
Hexachlorobenzene	ND	130	86	83	3.6	77	67	13.9	30 - 130	30	
Hexachlorobutadiene	ND	230	61	67	9.4	53	50	5.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	59	63	6.6	38	26	37.5	30 - 130	30	m,r
Hexachloroethane	ND	130	58	60	3.4	48	45	6.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	76	75	1.3	47	38	21.2	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ19753

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Isophorone	ND	130	69	72	4.3	61	56	8.5	30 - 130	30	
Naphthalene	ND	230	65	67	3.0	55	51	7.5	30 - 130	30	
Nitrobenzene	ND	130	72	74	2.7	61	57	6.8	30 - 130	30	
N-Nitrosodimethylamine	ND	230	54	56	3.6	45	35	25.0	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	73	77	5.3	65	59	9.7	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	77	76	1.3	68	61	10.9	30 - 130	30	
Pentachloronitrobenzene	ND	230	86	85	1.2	73	68	7.1	30 - 130	30	
Pentachlorophenol	ND	230	35	31	12.1	49	44	10.8	30 - 130	30	
Phenanthrene	ND	130	77	74	4.0	<10	<10	NC	30 - 130	30	m
Phenol	ND	230	74	78	5.3	68	59	14.2	30 - 130	30	
Pyrene	ND	230	78	74	5.3	<10	<10	NC	30 - 130	30	m
Pyridine	ND	230	42	43	2.4	35	28	22.2	30 - 130	30	m
% 2,4,6-Tribromophenol	76	%	95	93	2.1	84	75	11.3	30 - 130	30	
% 2-Fluorobiphenyl	70	%	72	76	5.4	65	62	4.7	30 - 130	30	
% 2-Fluorophenol	58	%	63	66	4.7	52	46	12.2	30 - 130	30	
% Nitrobenzene-d5	67	%	71	75	5.5	61	58	5.0	30 - 130	30	
% Phenol-d5	65	%	69	73	5.6	62	56	10.2	30 - 130	30	
% Terphenyl-d14	73	%	78	77	1.3	55	50	9.5	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 405383 (ug/L), QC Sample No: BZ20015 (BZ19753)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	64	67	4.6				30 - 130	20	
Acenaphthene	ND	0.05	76	78	2.6				30 - 130	20	
Acenaphthylene	ND	0.04	30	71	81.2				30 - 130	20	r
Anthracene	ND	0.02	75	80	6.5				30 - 130	20	
Benz(a)anthracene	ND	0.02	73	80	9.2				30 - 130	20	
Benzo(a)pyrene	ND	0.02	25	70	94.7				30 - 130	20	l,r
Benzo(b)fluoranthene	ND	0.02	82	88	7.1				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	33	72	74.3				30 - 130	20	r
Benzo(k)fluoranthene	ND	0.02	60	73	19.5				30 - 130	20	
Chrysene	ND	0.02	75	78	3.9				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	73	81	10.4				30 - 130	20	
Fluoranthene	ND	0.04	77	80	3.8				30 - 130	20	
Fluorene	ND	0.05	78	78	0.0				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	29	76	89.5				30 - 130	20	l,r
Naphthalene	ND	0.05	55	60	8.7				30 - 130	20	
Phenanthrene	ND	0.05	74	74	0.0				30 - 130	20	
Pyrene	ND	0.02	59	81	31.4				30 - 130	20	r
% 2-Fluorobiphenyl	65	%	68	68	0.0				30 - 130	20	
% Nitrobenzene-d5	64	%	54	58	7.1				30 - 130	20	
% Terphenyl-d14	81	%	87	85	2.3				30 - 130	20	

Comment:

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

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.

QA/QC Data

SDG I.D.: GBZ19753

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

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

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

Phyllis Shiller, Laboratory Director
October 18, 2017

Wednesday, October 18, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ19753 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ19753	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	320	90	90	ug/Kg
BZ19753	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	160	7	7	ug/Kg
BZ19753	$8260MAR	Bromodichloromethane	CT / RSR GB (mg/kg) / APS Organics	ND	320	210	210	ug/Kg
BZ19753	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	320	40	40	ug/Kg
BZ19753	$8260MAR	1,1,1,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	320	200	200	ug/Kg
BZ19753	$8260MAR	Methylene chloride	CT / RSR GB (mg/kg) / Volatiles	ND	1600	1000	1000	ug/Kg
BZ19753	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	320	100	100	ug/Kg
BZ19753	$8260MAR	Acrylonitrile	CT / RSR GB (mg/kg) / Volatiles	ND	160	100	100	ug/Kg
BZ19753	$8260MAR	1,2-Dibromoethane	CT / RSR GB (mg/kg) / Volatiles	ND	160	100	100	ug/Kg
BZ19753	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	320	100	100	ug/Kg
BZ19753	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	200	200	ug/Kg
BZ19753	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1100	200	200	ug/Kg
BZ19753	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	200	200	ug/Kg
BZ19753	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	770	770	ug/Kg
BZ19753	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ19753	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
BZ19753	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	900	900	ug/Kg
BZ19753	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1800	1400	1400	ug/Kg
BZ19753	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	3200	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4000	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ19753	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ19753	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ19753	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg
BZ19753	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ19753	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	3200	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ19753	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ19753	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ19753	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ19753	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ19753	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1200	1200	ug/Kg
BZ19753	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ19753	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ19753	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2600	2000	2000	ug/Kg
BZ19753	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ19753	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2600	2000	2000	ug/Kg
BZ19753	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	3400	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg

Wednesday, October 18, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ19753 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ19753	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	4000	2600	1000	1000	ug/Kg
BZ19753	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ19753	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	8800	560	500	500	mg/Kg
BZ19753	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	8800	560	2500	2500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: SB-19 (12-14 FT) ***Project Number:***

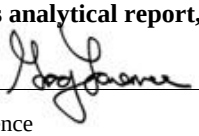
Laboratory Sample ID(s): BZ19753 ***Sampling Date(s):*** 10/11/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, October 18, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 18, 2017

SDG I.D.: GBZ19753

SDG Comments

Due to the concentration of target and/or non-target compounds not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 10/13/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/13/17

BZ19753

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Site Specific):

Batch 405402 (BZ19753)

BZ19753

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

ETPH Narration

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

Instrument:

AU-FID21 10/16/17-1 Jeff Bucko, Chemist 10/16/17

BZ19753

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

QC (Batch Specific):

Batch 405330 (BZ19141)

BZ19753

All LCS recoveries were within 60 - 120 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

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Certification Report

October 18, 2017

SDG I.D.: GBZ19753

Mercury Narration

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

QC Batch 405244 (Samples: BZ19753): -----

The Sample/Duplicate RPD exceeds the method criteria, therefore there may be a slight variability in the reported result.

Instrument:

MERLIN 10/12/17 09:35 Rick Schweitzer, Chemist 10/12/17

BZ19753

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 405244 (BZ18257)

BZ19753

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

Batch 405245 (BZ18680)

BZ19753

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

ICP Metals Narration

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

QC Batch 405215 (Samples: BZ19753): -----

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

Instrument:

ARCOS 10/13/17 09:42 Mike Arsenault, Tina Hall, Chemist 10/13/17

PHOENIX

Environmental Laboratories, Inc.
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Certification Report

October 18, 2017

SDG I.D.: GBZ19753

ICP Metals Narration

BZ19753

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

BLUE 10/12/17 12:47 Mike Arsenault, Chemist 10/12/17

BZ19753

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

QC (Batch Specific):

Batch 405215 (BZ19457)

BZ19753

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

Batch 405250 (BZ09188)

BZ19753

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

SVOA Narration

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

QC Batch 405322 (Samples: BZ19753): -----

The LCS/LCSD recovery for one or more analytes is below the method criteria. The Batch MS/MSD recoveries are acceptable. A low bias for these analytes is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol)

The QC recoveries for one analyte is below the method criteria. A low bias is likely. (Benzoic Acid)

Instrument:

CHEM06 10/12/17-1 Damien Drobinski, Chemist 10/12/17

BZ19753

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

Initial Calibration Verification (CHEM06/SPLIT_1006):
100% of target compounds met criteria.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 18, 2017

SDG I.D.: GBZ19753

SVOA Narration

The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.064 (0.1), Hexachlorobenzene 0.079 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1012_04A-SPLIT_1006):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.070 (0.1), Hexachlorobenzene 0.085 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 405322 (BZ20005)

BZ19753

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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

QC Batch 405383 (Samples: BZ19753): -----

The LCS recovery is below the lower range but within the method criteria. The LCSD recovery is acceptable. A slight bias is possible. (Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Acenaphthylene, Benzo(a)pyrene, Benzo(ghi)perylene, Indeno(1,2,3-cd)pyrene, Pyrene)

Instrument:

CHEM04 10/13/17-1 Damien Drobinski, Chemist 10/13/17

BZ19753

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

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

Initial Calibration Verification (CHEM04/SIM_1006):
92% of target compounds met criteria.

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

October 18, 2017

SDG I.D.: GBZ19753

SVOASIM Narration

The following compounds had %RSDs >20%: Benz(a)anthracene 30% (20%), Benzo(b)fluoranthene 21% (20%), Benzo(k)fluoranthene 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 (CHEM04/1013_02-SIM_1006):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 405383 (BZ20015)

BZ19753

All LCS recoveries were within 30 - 130 with the following exceptions: Benzo(a)pyrene(25%), Indeno(1,2,3-cd)pyrene(29%)
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: Acenaphthylene(81.2%), Benzo(a)pyrene(94.7%), Benzo(ghi)perylene(74.3%), Indeno(1,2,3-cd)pyrene(89.5%), Pyrene(31.4%)
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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 405719 (Samples: BZ19753): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Bromoform, cis-1,3-Dichloropropene, Dibromochloromethane)

The QC recovery for one analyte is above the upper range, therefore a slight high bias is possible. (Naphthalene)

Instrument:

CHEM14 10/13/17-1 Jane Li, Chemist 10/13/17

BZ19753

Initial Calibration Verification (CHEM14/VT-1010):
91% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 29% (20%), Methylene chloride 27% (20%), Naphthalene 23% (20%), trans-1,3-Dichloropropene 23% (20%), trans-1,4-dichloro-2-butene 35% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1012_64-VT-1010):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 18, 2017

SDG I.D.: GBZ19753

VOA Narration

100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 405719 (BZ19339)

BZ19753

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromoform(133%), cis-1,3-Dichloropropene(132%), Dibromochloromethane(136%), Naphthalene(136%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples in this delivery group were received at 3.7°C.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [1] No [ ]
Coolant: IPK [ ] ICE [1] No [ ]

CHAIN OF CUSTODY RECORD

Temp 3 °C Pg 1 of 1

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

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwilley@TigheBond.com

Customer: Tighe + Bond Inc
Address: 213 Court Street
Middletown CT

Project: Rockville MGP Site
Report to: Lynn Willey
Invoice to: Tighe + Bond Westfield

Project P.O: 14-0775-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 10/11/17

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

Analysis Request: VOCs 8260 (CT List) EDD; Deep RSR Metals; SPLP Lead; TCLP Lead; SPLP PAH's; RSR Hg only

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	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
19753	SB-19 (12-14')	S	10/11/17	1345	X	X	X	X	X	X	X	3	1	

Relinquished by: DJC
Accepted by: [signature]
Date: 10/11/17 Time: 1910

Comments, Special Requirements or Regulations:
Quote: T10251703A
Rockville Eversource MGP Site

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

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

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

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

State where samples were collected: CT

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

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

PHOENIX
Environmental Laboratories, Inc.

Friday, November 03, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP SITE
Sample ID#s: BZ28211 - BZ28213

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

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

Analysis Report

November 03, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	RC	10/25/17	12:00
Location Code:	TIGHE-DAS	Received by:	DL	10/26/17	20:02
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ28211
Phoenix ID: BZ28211

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Arsenic	< 0.76	0.76	mg/Kg	1	10/28/17	MA	SW6010C
Barium	10.9	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	10/30/17	MA	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Chromium	4.49	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Copper	3.28	0.38	mg/kg	1	10/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/27/17	RS	SW7471B
Nickel	2.48	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Lead	2.29	0.38	mg/Kg	1	10/28/17	MA	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	10/28/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	10/30/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/27/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/27/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/27/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	10/28/17	MA	SW6010C

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Phoenix I.D.: BZ28211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
SPLP Metals Digestion	Completed				10/27/17	W/W	SW3005A	
Vanadium	7.31	0.38	mg/Kg	1	10/28/17	MA	SW6010C	
Zinc	7.13	0.38	mg/Kg	1	10/28/17	MA	SW6010C	B
Percent Solid	77		%		10/27/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.65	0.65	mg/Kg	1	10/27/17	O/GD	SW9012B	
Soil Extraction for SVOA	Completed				10/27/17	BJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/27/17	M/J/VCK	SW3545A	
Mercury Digestion	Completed				10/27/17	W/W	SW7471B	
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				10/26/17	W	SW1312	
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	64	mg/Kg	1	10/28/17	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	1	10/28/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	72		%	1	10/28/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	4.0	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloroethene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloropropene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dibromoethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichloropropane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3-Dichloropropane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
2,2-Dichloropropane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Chlorotoluene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Hexanone	ND	33	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Isopropyltoluene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
4-Chlorotoluene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	33	ug/Kg	1	10/28/17	JLI	SW8260C	
Acetone	ND	330	ug/Kg	1	10/28/17	JLI	SW8260C	
Acrylonitrile	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
Benzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
Bromobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	
Bromochloromethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C	

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Phoenix I.D.: BZ28211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	4.0	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	40	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	6.7	ug/Kg	1	10/28/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/28/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Phoenix I.D.: BZ28211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitroaniline	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
3-Nitroaniline	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloroaniline	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitroaniline	ND	680	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Acetophenone	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Aniline	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Anthracene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Benzoic acid	ND	850	ug/Kg	1	10/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Carbazole	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Chrysene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Dibenzofuran	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	10/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Phoenix I.D.: BZ28211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	850	ug/Kg	1	10/28/17	DD	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Fluoranthene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Fluorene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobutadiene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Isophorone	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Naphthalene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Nitrobenzene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
Phenanthrene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Phenol	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Pyrene	ND	300	ug/Kg	1	10/28/17	DD	SW8270D
Pyridine	ND	420	ug/Kg	1	10/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	50		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	59		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorophenol	55		%	1	10/28/17	DD	30 - 130 %
% Nitrobenzene-d5	55		%	1	10/28/17	DD	30 - 130 %
% Phenol-d5	60		%	1	10/28/17	DD	30 - 130 %
% Terphenyl-d14	69		%	1	10/28/17	DD	30 - 130 %
Field Extraction	Completed				10/25/17		SW5035A

Project ID: ROCKVILLE MGP SITE
Client ID: MW-17S (8-10)

Phoenix I.D.: BZ28211

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

B = Present in blank, no bias suspected.

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 03, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

November 03, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	RC	10/25/17	14:30
Location Code:	TIGHE-DAS	Received by:	DL	10/26/17	20:02
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ28211
Phoenix ID: BZ28212

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.44	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Arsenic	1.35	0.89	mg/Kg	1	10/28/17	MA	SW6010C
Barium	51.1	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Beryllium	< 0.36	0.36	mg/Kg	1	10/30/17	MA	SW6010C
Cadmium	0.81	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Chromium	22.2	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Copper	14.1	0.44	mg/kg	1	10/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/27/17	RS	SW7471B
Nickel	8.18	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Lead	4.46	0.44	mg/Kg	1	10/28/17	MA	SW6010C
Antimony	< 4.4	4.4	mg/Kg	1	10/28/17	MA	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	10/30/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/27/17	MA	SW6010C
SPLP Barium	0.060	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/27/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/27/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
Thallium	< 4.0	4.0	mg/Kg	1	10/28/17	MA	SW6010C

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Phoenix I.D.: BZ28212

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
SPLP Metals Digestion	Completed				10/27/17	W/W	SW3005A	
Vanadium	53.3	0.44	mg/Kg	1	10/28/17	MA	SW6010C	
Zinc	49.5	0.44	mg/Kg	1	10/28/17	MA	SW6010C	B
Percent Solid	73		%		10/27/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.68	0.68	mg/Kg	1	10/27/17	O/GD	SW9012B	
Soil Extraction for SVOA	Completed				10/30/17	BJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/27/17	M/J/VCK	SW3545A	
Mercury Digestion	Completed				10/27/17	W/W	SW7471B	
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				10/26/17	W	SW1312	
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	67	mg/Kg	1	10/28/17	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	1	10/28/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	70		%	1	10/28/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloroethene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,1-Dichloropropene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dibromoethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,2-Dichloropropane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,3-Dichloropropane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
2,2-Dichloropropane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Chlorotoluene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Hexanone	ND	29	ug/Kg	1	10/28/17	JLI	SW8260C	
2-Isopropyltoluene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
4-Chlorotoluene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	29	ug/Kg	1	10/28/17	JLI	SW8260C	
Acetone	ND	290	ug/Kg	1	10/28/17	JLI	SW8260C	
Acrylonitrile	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
Benzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
Bromobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	
Bromochloromethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C	

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Phoenix I.D.: BZ28212

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromoform	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Bromomethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon Disulfide	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Carbon tetrachloride	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chlorobenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloroform	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Chloromethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromochloromethane	ND	3.5	ug/Kg	1	10/28/17	JLI	SW8260C
Dibromomethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Ethylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Isopropylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
m&p-Xylene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	35	ug/Kg	1	10/28/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	10/28/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	10/28/17	JLI	SW8260C
Naphthalene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Butylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
n-Propylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
o-Xylene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
sec-Butylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Styrene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
tert-Butylbenzene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrachloroethene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	10/28/17	JLI	SW8260C
Toluene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Total Xylenes	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	10/28/17	JLI	SW8260C
Trichloroethene	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
Vinyl chloride	ND	5.8	ug/Kg	1	10/28/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	10/28/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/28/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/28/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/28/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
1,2-Dichlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Phoenix I.D.: BZ28212

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
1,3-Dichlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
1,4-Dichlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dimethylphenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dinitrophenol	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
2,4-Dinitrotoluene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2,6-Dinitrotoluene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2-Chloronaphthalene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2-Chlorophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2-Methylnaphthalene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
2-Nitroaniline	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
2-Nitrophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
3-Nitroaniline	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
4-Chloroaniline	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
4-Nitroaniline	ND	710	ug/Kg	1	10/30/17	DD	SW8270D
4-Nitrophenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Acenaphthene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Acenaphthylene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Acetophenone	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Aniline	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Anthracene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benz(a)anthracene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(a)pyrene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(b)fluoranthene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(ghi)perylene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benzo(k)fluoranthene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Benzoic acid	ND	890	ug/Kg	1	10/30/17	DD	SW8270D
Benzyl butyl phthalate	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Carbazole	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Chrysene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Dibenzofuran	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Diethyl phthalate	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Dimethylphthalate	ND	310	ug/Kg	1	10/30/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Phoenix I.D.: BZ28212

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	890	ug/Kg	1	10/30/17	DD	SW8270D
Di-n-octylphthalate	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Fluoranthene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Fluorene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorobutadiene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Hexachloroethane	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Isophorone	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Naphthalene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Nitrobenzene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/30/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Pentachloronitrobenzene	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Pentachlorophenol	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
Phenanthrene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Phenol	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Pyrene	ND	310	ug/Kg	1	10/30/17	DD	SW8270D
Pyridine	ND	450	ug/Kg	1	10/30/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	62		%	1	10/30/17	DD	30 - 130 %
% 2-Fluorobiphenyl	45		%	1	10/30/17	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	10/30/17	DD	30 - 130 %
% Nitrobenzene-d5	46		%	1	10/30/17	DD	30 - 130 %
% Phenol-d5	45		%	1	10/30/17	DD	30 - 130 %
% Terphenyl-d14	48		%	1	10/30/17	DD	30 - 130 %
Field Extraction	Completed				10/25/17		SW5035A

Project ID: ROCKVILLE MGP SITE
Client ID: SB-10 (5-7)

Phoenix I.D.: BZ28212

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

B = Present in blank, no bias suspected.

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

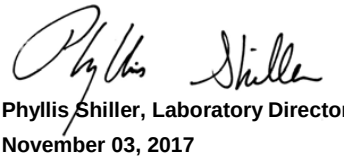
Comments:

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

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

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

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



Phyllis Shiller, Laboratory Director
November 03, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

November 03, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	RC	10/26/17	9:00
Location Code:	TIGHE-DAS	Received by:	DL	10/26/17	20:02
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ28211
Phoenix ID: BZ28213

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Arsenic	3.74	0.74	mg/Kg	1	10/28/17	MA	SW6010C
Barium	83.3	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Beryllium	0.32	0.30	mg/Kg	1	10/30/17	MA	SW6010C
Cadmium	0.47	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Chromium	16.9	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Copper	19.9	0.37	mg/kg	1	10/28/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	10/27/17	RS	SW7471B
Nickel	14.8	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Lead	5.32	0.37	mg/Kg	1	10/28/17	MA	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	10/28/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	10/30/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/27/17	MA	SW6010C
SPLP Barium	0.016	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/27/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Copper	0.013	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/30/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	10/27/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	10/27/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/27/17	MA	SW6010C
SPLP Zinc	0.019	0.010	mg/L	1	10/27/17	MA	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	10/28/17	MA	SW6010C

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)

Phoenix I.D.: BZ28213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
SPLP Metals Digestion	Completed				10/27/17	W/W	SW3005A	
Vanadium	33.4	0.37	mg/Kg	1	10/28/17	MA	SW6010C	
Zinc	41.3	0.37	mg/Kg	1	10/28/17	MA	SW6010C	B
Percent Solid	88		%		10/27/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	10/27/17	O/GD	SW9012B	
Soil Extraction for SVOA	Completed				10/27/17	BJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/27/17	M/J/VCK	SW3545A	
Mercury Digestion	Completed				10/27/17	W/W	SW7471B	
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A	
SPLP Extraction for Metals	Completed				10/26/17	W	SW1312	
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	1900	280	mg/Kg	5	10/30/17	JRB	CTETPH 8015D	
Identification	**		mg/Kg	5	10/30/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	150		%	5	10/30/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1-Dichloroethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1-Dichloroethene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,1-Dichloropropene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	58	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2-Dibromoethane	ND	29	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2-Dichloroethane	ND	200	ug/Kg	50	10/29/17	JLI	SW8260C	
1,2-Dichloropropane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,3-Dichloropropane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
2,2-Dichloropropane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
2-Chlorotoluene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
2-Hexanone	ND	1500	ug/Kg	50	10/29/17	JLI	SW8260C	
2-Isopropyltoluene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
4-Chlorotoluene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	1500	ug/Kg	50	10/29/17	JLI	SW8260C	
Acetone	ND	15000	ug/Kg	50	10/29/17	JLI	SW8260C	
Acrylonitrile	ND	100	ug/Kg	50	10/29/17	JLI	SW8260C	
Benzene	ND	200	ug/Kg	50	10/29/17	JLI	SW8260C	
Bromobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	
Bromochloromethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C	

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)

Phoenix I.D.: BZ28213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	210	ug/Kg	50	10/29/17	JLI	SW8260C
Bromoform	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Bromomethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Carbon Disulfide	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Carbon tetrachloride	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Chlorobenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Chloroethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Chloroform	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Chloromethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	10/29/17	JLI	SW8260C
Dibromomethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Ethylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Isopropylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
m&p-Xylene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	1700	ug/Kg	50	10/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	580	ug/Kg	50	10/29/17	JLI	SW8260C
Methylene chloride	ND	580	ug/Kg	50	10/29/17	JLI	SW8260C
Naphthalene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
n-Butylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
n-Propylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
o-Xylene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
sec-Butylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Styrene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
tert-Butylbenzene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Tetrachloroethene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	580	ug/Kg	50	10/29/17	JLI	SW8260C
Toluene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Total Xylenes	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	580	ug/Kg	50	10/29/17	JLI	SW8260C
Trichloroethene	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
Vinyl chloride	ND	290	ug/Kg	50	10/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	10/29/17	JLI	70 - 130 %
% Bromofluorobenzene	115		%	50	10/29/17	JLI	70 - 130 %
% Dibromofluoromethane	90		%	50	10/29/17	JLI	70 - 130 %
% Toluene-d8	99		%	50	10/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1800	ug/Kg	20	10/31/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	20	10/31/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)

Phoenix I.D.: BZ28213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	3000	ug/Kg	20	10/31/17	DD	SW8270D
1,3-Dichlorobenzene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
1,4-Dichlorobenzene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	2400	ug/Kg	20	10/31/17	DD	SW8270D
2,4-Dichlorophenol	ND	4000	ug/Kg	20	10/31/17	DD	SW8270D
2,4-Dimethylphenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2,4-Dinitrophenol	ND	3700	ug/Kg	20	10/31/17	DD	SW8270D
2,4-Dinitrotoluene	ND	2900	ug/Kg	20	10/31/17	DD	SW8270D
2,6-Dinitrotoluene	ND	2300	ug/Kg	20	10/31/17	DD	SW8270D
2-Chloronaphthalene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2-Chlorophenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2-Methylnaphthalene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2-Nitroaniline	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
2-Nitrophenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	7400	ug/Kg	20	10/31/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	3500	ug/Kg	20	10/31/17	DD	SW8270D
3-Nitroaniline	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	3700	ug/Kg	20	10/31/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	7400	ug/Kg	20	10/31/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
4-Chloroaniline	ND	3500	ug/Kg	20	10/31/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
4-Nitroaniline	ND	2500	ug/Kg	20	10/31/17	DD	SW8270D
4-Nitrophenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Acenaphthene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Acenaphthylene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Acetophenone	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Aniline	ND	3000	ug/Kg	20	10/31/17	DD	SW8270D
Anthracene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benz(a)anthracene	7800	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benzidine	ND	3000	ug/Kg	20	10/31/17	DD	SW8270D
Benzo(a)pyrene	6200	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benzo(b)fluoranthene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benzo(ghi)perylene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benzo(k)fluoranthene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Benzoic acid	ND	15000	ug/Kg	20	10/31/17	DD	SW8270D
Benzyl butyl phthalate	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4200	ug/Kg	20	10/31/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	2000	ug/Kg	20	10/31/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	20	10/31/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Carbazole	ND	3000	ug/Kg	20	10/31/17	DD	SW8270D
Chrysene	7800	5200	ug/Kg	20	10/31/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	2400	ug/Kg	20	10/31/17	DD	SW8270D
Dibenzofuran	ND	2200	ug/Kg	20	10/31/17	DD	SW8270D
Diethyl phthalate	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Dimethylphthalate	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)

Phoenix I.D.: BZ28213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	15000	ug/Kg	20	10/31/17	DD	SW8270D
Di-n-octylphthalate	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Fluoranthene	8800	5200	ug/Kg	20	10/31/17	DD	SW8270D
Fluorene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Hexachlorobenzene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Hexachlorobutadiene	ND	2700	ug/Kg	20	10/31/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Hexachloroethane	ND	2200	ug/Kg	20	10/31/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Isophorone	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Naphthalene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Nitrobenzene	ND	2600	ug/Kg	20	10/31/17	DD	SW8270D
N-Nitrosodimethylamine	ND	2100	ug/Kg	20	10/31/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	2400	ug/Kg	20	10/31/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	2800	ug/Kg	20	10/31/17	DD	SW8270D
Pentachloronitrobenzene	ND	2200	ug/Kg	20	10/31/17	DD	SW8270D
Pentachlorophenol	ND	2800	ug/Kg	20	10/31/17	DD	SW8270D
Phenanthrene	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Phenol	ND	5200	ug/Kg	20	10/31/17	DD	SW8270D
Pyrene	19000	5200	ug/Kg	20	10/31/17	DD	SW8270D
Pyridine	ND	1800	ug/Kg	20	10/31/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	20	10/31/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	20	10/31/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	20	10/31/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	20	10/31/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	20	10/31/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	20	10/31/17	DD	30 - 130 %
Field Extraction	Completed				10/26/17		SW5035A

Project ID: ROCKVILLE MGP SITE
Client ID: MW-2BR (11-13)
Phoenix I.D.: BZ28213

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

B = Present in blank, no bias suspected.

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

Comments:

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

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of non-target compounds.

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.

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.
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Phyllis Shiller, Laboratory Director
November 03, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

November 03, 2017

QA/QC Data

SDG I.D.: GBZ28211

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 407307 (mg/kg), QC Sample No: BZ27085 (BZ28211, BZ28212, BZ28213)														
Mercury - Soil	BRL	0.03	0.06	0.06	NC	97.4	102	4.6	105			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 407309 (mg/L), QC Sample No: BZ27900 (BZ28211, BZ28212, BZ28213)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	100			97.4			75 - 125	20	
Arsenic	BRL	0.004	0.007	0.007	NC	98.9			97.3			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	100			97.2			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			98.5			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	101			96.8			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	98.9			96.4			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	100			97.8			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	99.8			96.4			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	102			99.2			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	102			99.6			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	96.6			94.5			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	98.4			95.7			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	98.6			96.0			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	100			97.1			75 - 125	20	
QA/QC Batch 407383 (mg/kg), QC Sample No: BZ28416 (BZ28211, BZ28212, BZ28213)														
ICP Metals - Soil														
Antimony	BRL	3.2	<4.6	537	NC	79.3			86.4			75 - 125	30	
Arsenic	BRL	0.63	49.9	51.6	3.30	89.5			93.3			75 - 125	30	
Barium	BRL	0.32	1440	1570	8.60	98.7			NC			75 - 125	30	
Beryllium	BRL	0.25	0.56	0.40	NC	102			96.5			75 - 125	30	
Cadmium	BRL	0.32	18.7	9.37	66.5	101			92.2			75 - 125	30	r
Chromium	BRL	0.32	72.3	126	54.2	101			116			75 - 125	30	r
Copper	BRL	0.32	747	219	109	99.5			NC			75 - 125	30	r
Lead	BRL	0.32	846	930	9.50	102			NC			75 - 125	30	
Nickel	BRL	0.32	97.5	106	8.40	103			104			75 - 125	30	
Selenium	BRL	1.3	<1.8	<1.9	NC	84.9			90.0			75 - 125	30	
Silver	BRL	0.32	3.83	1.87	NC	90.5			120			75 - 125	30	
Thallium	BRL	2.8	<4.1	<4.2	NC	101			110			75 - 125	30	
Vanadium	BRL	0.32	28.0	18.0	43.5	98.9			124			75 - 125	30	r
Zinc	0.40	0.32	3940	2100	60.9	97.8			NC			75 - 125	30	r
QA/QC Batch 407515 (mg/L), QC Sample No: BZ28754 (BZ28211, BZ28212, BZ28213)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	96.1			89.8			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														

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

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QA/QC Report

November 03, 2017

QA/QC Data

SDG I.D.: GBZ28211

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 407226 (mg/Kg), QC Sample No: BZ26845 50X (BZ28211, BZ28212, BZ28213)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.54	<0.54	NC	104			106			80 - 120	30

Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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QA/QC Report

November 03, 2017

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 407379 (mg/Kg), QC Sample No: BZ27948 (BZ28211, BZ28212, BZ28213)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	62	63	1.6	80	75	6.5	60 - 120	30
% n-Pentacosane	61	%	76	57	28.6	82	77	6.3	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 407597 (ug/kg), QC Sample No: BZ28315 (BZ28213 (50X))										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	123	119	3.3				70 - 130	30
1,1,1-Trichloroethane	ND	5.0	125	120	4.1				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	121	113	6.8				70 - 130	30
1,1,2-Trichloroethane	ND	5.0	117	114	2.6				70 - 130	30
1,1-Dichloroethane	ND	5.0	124	120	3.3				70 - 130	30
1,1-Dichloroethene	ND	5.0	122	119	2.5				70 - 130	30
1,1-Dichloropropene	ND	5.0	121	119	1.7				70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	122	114	6.8				70 - 130	30
1,2,3-Trichloropropane	ND	5.0	112	110	1.8				70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	118	109	7.9				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	114	110	3.6				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	120	120	0.0				70 - 130	30
1,2-Dibromoethane	ND	5.0	119	114	4.3				70 - 130	30
1,2-Dichlorobenzene	ND	5.0	113	107	5.5				70 - 130	30
1,2-Dichloroethane	ND	5.0	124	120	3.3				70 - 130	30
1,2-Dichloropropane	ND	5.0	125	121	3.3				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	115	110	4.4				70 - 130	30
1,3-Dichlorobenzene	ND	5.0	114	109	4.5				70 - 130	30
1,3-Dichloropropane	ND	5.0	116	112	3.5				70 - 130	30
1,4-Dichlorobenzene	ND	5.0	111	104	6.5				70 - 130	30
2,2-Dichloropropane	ND	5.0	135	128	5.3				70 - 130	30
2-Chlorotoluene	ND	5.0	113	109	3.6				70 - 130	30
2-Hexanone	ND	25	108	100	7.7				70 - 130	30
2-Isopropyltoluene	ND	5.0	105	100	4.9				70 - 130	30
4-Chlorotoluene	ND	5.0	114	108	5.4				70 - 130	30
4-Methyl-2-pentanone	ND	25	117	112	4.4				70 - 130	30
Acetone	ND	10	97	93	4.2				70 - 130	30
Acrylonitrile	ND	5.0	110	107	2.8				70 - 130	30
Benzene	ND	1.0	121	117	3.4				70 - 130	30
Bromobenzene	ND	5.0	112	106	5.5				70 - 130	30
Bromochloromethane	ND	5.0	117	110	6.2				70 - 130	30
Bromodichloromethane	ND	5.0	130	129	0.8				70 - 130	30
Bromoform	ND	5.0	129	127	1.6				70 - 130	30
Bromomethane	ND	5.0	107	106	0.9				70 - 130	30

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	5.0	123	123	0.0				70 - 130	30
Carbon tetrachloride	ND	5.0	130	127	2.3				70 - 130	30
Chlorobenzene	ND	5.0	113	110	2.7				70 - 130	30
Chloroethane	ND	5.0	110	110	0.0				70 - 130	30
Chloroform	ND	5.0	117	114	2.6				70 - 130	30
Chloromethane	ND	5.0	101	98	3.0				70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	119	114	4.3				70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	135	131	3.0				70 - 130	30
Dibromochloromethane	ND	3.0	130	130	0.0				70 - 130	30
Dibromomethane	ND	5.0	121	119	1.7				70 - 130	30
Dichlorodifluoromethane	ND	5.0	101	97	4.0				70 - 130	30
Ethylbenzene	ND	1.0	114	110	3.6				70 - 130	30
Hexachlorobutadiene	ND	5.0	114	107	6.3				70 - 130	30
Isopropylbenzene	ND	1.0	114	109	4.5				70 - 130	30
m&p-Xylene	ND	2.0	115	110	4.4				70 - 130	30
Methyl ethyl ketone	ND	5.0	118	107	9.8				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	108	103	4.7				70 - 130	30
Methylene chloride	ND	5.0	112	110	1.8				70 - 130	30
Naphthalene	ND	5.0	136	128	6.1				70 - 130	30
n-Butylbenzene	ND	1.0	119	113	5.2				70 - 130	30
n-Propylbenzene	ND	1.0	115	109	5.4				70 - 130	30
o-Xylene	ND	2.0	119	115	3.4				70 - 130	30
p-Isopropyltoluene	ND	1.0	120	113	6.0				70 - 130	30
sec-Butylbenzene	ND	1.0	121	116	4.2				70 - 130	30
Styrene	ND	5.0	119	115	3.4				70 - 130	30
tert-Butylbenzene	ND	1.0	114	111	2.7				70 - 130	30
Tetrachloroethene	ND	5.0	120	114	5.1				70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	110	100	9.5				70 - 130	30
Toluene	ND	1.0	119	114	4.3				70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	117	112	4.4				70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	132	130	1.5				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	130	121	7.2				70 - 130	30
Trichloroethene	ND	5.0	117	116	0.9				70 - 130	30
Trichlorofluoromethane	ND	5.0	102	98	4.0				70 - 130	30
Trichlorotrifluoroethane	ND	5.0	107	103	3.8				70 - 130	30
Vinyl chloride	ND	5.0	105	100	4.9				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	101	97	4.0				70 - 130	30
% Bromofluorobenzene	101	%	103	102	1.0				70 - 130	30
% Dibromofluoromethane	94	%	97	99	2.0				70 - 130	30
% Toluene-d8	99	%	104	103	1.0				70 - 130	30

Comment:

The MS/MSD are not reported for this batch.

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

QA/QC Batch 407592 (ug/kg), QC Sample No: BZ28471 (BZ28211, BZ28212)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	122	125	2.4	109	116	6.2	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	121	123	1.6	117	121	3.4	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	116	118	1.7	98	105	6.9	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	116	117	0.9	104	109	4.7	70 - 130	30
1,1-Dichloroethane	ND	5.0	124	125	0.8	120	124	3.3	70 - 130	30
1,1-Dichloroethene	ND	5.0	119	123	3.3	116	120	3.4	70 - 130	30
1,1-Dichloropropene	ND	5.0	118	120	1.7	115	117	1.7	70 - 130	30

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichlorobenzene	ND	5.0	106	106	0.0	73	66	10.1	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	109	113	3.6	100	107	6.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	97	98	1.0	69	64	7.5	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	109	110	0.9	75	75	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	115	120	4.3	90	97	7.5	70 - 130	30	
1,2-Dibromoethane	ND	5.0	115	121	5.1	103	109	5.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	109	108	0.9	90	93	3.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	119	122	2.5	113	116	2.6	70 - 130	30	
1,2-Dichloropropane	ND	5.0	122	123	0.8	114	121	6.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	110	110	0.0	87	88	1.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	106	107	0.9	92	95	3.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	115	121	5.1	104	110	5.6	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	101	102	1.0	87	89	2.3	70 - 130	30	
2,2-Dichloropropane	ND	5.0	127	127	0.0	115	121	5.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	107	108	0.9	98	101	3.0	70 - 130	30	
2-Hexanone	ND	25	101	108	6.7	25	22	12.8	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	102	103	1.0	83	84	1.2	70 - 130	30	
4-Chlorotoluene	ND	5.0	107	107	0.0	96	99	3.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	109	118	7.9	45	42	6.9	70 - 130	30	m
Acetone	ND	10	90	93	3.3	82	81	1.2	70 - 130	30	
Acrylonitrile	ND	5.0	104	114	9.2	92	97	5.3	70 - 130	30	
Benzene	ND	1.0	117	120	2.5	113	117	3.5	70 - 130	30	
Bromobenzene	ND	5.0	109	110	0.9	99	103	4.0	70 - 130	30	
Bromochloromethane	ND	5.0	116	118	1.7	104	110	5.6	70 - 130	30	
Bromodichloromethane	ND	5.0	127	129	1.6	115	123	6.7	70 - 130	30	
Bromoform	ND	5.0	121	131	7.9	97	105	7.9	70 - 130	30	I
Bromomethane	ND	5.0	113	112	0.9	99	106	6.8	70 - 130	30	
Carbon Disulfide	ND	5.0	123	124	0.8	104	110	5.6	70 - 130	30	
Carbon tetrachloride	ND	5.0	128	130	1.6	121	124	2.4	70 - 130	30	
Chlorobenzene	ND	5.0	110	113	2.7	102	104	1.9	70 - 130	30	
Chloroethane	ND	5.0	113	115	1.8	103	115	11.0	70 - 130	30	
Chloroform	ND	5.0	123	125	1.6	111	115	3.5	70 - 130	30	
Chloromethane	ND	5.0	89	92	3.3	88	88	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	119	119	0.0	111	116	4.4	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	126	129	2.4	112	117	4.4	70 - 130	30	
Dibromochloromethane	ND	3.0	130	133	2.3	110	119	7.9	70 - 130	30	I
Dibromomethane	ND	5.0	120	119	0.8	107	113	5.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	83	87	4.7	77	78	1.3	70 - 130	30	
Ethylbenzene	ND	1.0	111	114	2.7	103	105	1.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	106	104	1.9	74	73	1.4	70 - 130	30	
Isopropylbenzene	ND	1.0	111	112	0.9	103	109	5.7	70 - 130	30	
m&p-Xylene	ND	2.0	110	114	3.6	97	98	1.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	108	120	10.5	70	70	0.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	103	105	1.9	95	100	5.1	70 - 130	30	
Methylene chloride	ND	5.0	112	115	2.6	108	114	5.4	70 - 130	30	
Naphthalene	ND	5.0	121	126	4.0	60	49	20.2	70 - 130	30	m
n-Butylbenzene	ND	1.0	110	110	0.0	83	84	1.2	70 - 130	30	
n-Propylbenzene	ND	1.0	110	111	0.9	99	101	2.0	70 - 130	30	
o-Xylene	ND	2.0	114	119	4.3	106	106	0.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	112	113	0.9	89	89	0.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	117	118	0.9	102	104	1.9	70 - 130	30	
Styrene	ND	5.0	113	119	5.2	99	100	1.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	113	114	0.9	101	104	2.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrachloroethene	ND	5.0	111	114	2.7	104	106	1.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	105	109	3.7	89	95	6.5	70 - 130	30	
Toluene	ND	1.0	114	117	2.6	108	112	3.6	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	114	117	2.6	108	110	1.8	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	123	127	3.2	106	113	6.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	117	121	3.4	87	92	5.6	70 - 130	30	
Trichloroethene	ND	5.0	115	117	1.7	114	117	2.6	70 - 130	30	
Trichlorofluoromethane	ND	5.0	99	101	2.0	96	98	2.1	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	102	1.0	99	102	3.0	70 - 130	30	
Vinyl chloride	ND	5.0	95	98	3.1	92	94	2.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	102	%	102	99	3.0	101	99	2.0	70 - 130	30	
% Bromofluorobenzene	98	%	102	104	1.9	99	99	0.0	70 - 130	30	
% Dibromofluoromethane	90	%	100	102	2.0	100	97	3.0	70 - 130	30	
% Toluene-d8	100	%	102	103	1.0	102	103	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 407344 (ug/kg), QC Sample No: BZ28484 (BZ28211, BZ28213)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	70	68	2.9	51	65	24.1	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	67	65	3.0	50	64	24.6	30 - 130	30	
1,2-Dichlorobenzene	ND	180	60	59	1.7	41	56	30.9	30 - 130	30	r
1,2-Diphenylhydrazine	ND	230	59	59	0.0	45	53	16.3	30 - 130	30	
1,3-Dichlorobenzene	ND	230	56	54	3.6	38	51	29.2	30 - 130	30	
1,4-Dichlorobenzene	ND	230	59	57	3.4	39	54	32.3	30 - 130	30	r
2,4,5-Trichlorophenol	ND	230	67	65	3.0	52	62	17.5	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	63	63	0.0	50	59	16.5	30 - 130	30	
2,4-Dichlorophenol	ND	130	75	74	1.3	56	67	17.9	30 - 130	30	
2,4-Dimethylphenol	ND	230	66	65	1.5	48	56	15.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	36	24	40.0	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	73	73	0.0	56	65	14.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	66	65	1.5	50	60	18.2	30 - 130	30	
2-Chloronaphthalene	ND	230	64	63	1.6	49	60	20.2	30 - 130	30	
2-Chlorophenol	ND	230	64	64	0.0	46	59	24.8	30 - 130	30	
2-Methylnaphthalene	ND	230	67	65	3.0	52	62	17.5	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	73	72	1.4	50	65	26.1	30 - 130	30	
2-Nitroaniline	ND	330	75	74	1.3	57	63	10.0	30 - 130	30	
2-Nitrophenol	ND	230	50	48	4.1	39	47	18.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	67	67	0.0	49	57	15.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	87	91	4.5	55	76	32.1	30 - 130	30	r
3-Nitroaniline	ND	330	84	84	0.0	62	72	14.9	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	51	41	21.7	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	67	66	1.5	49	62	23.4	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	76	74	2.7	57	66	14.6	30 - 130	30	
4-Chloroaniline	ND	230	62	63	1.6	45	51	12.5	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	66	67	1.5	49	60	20.2	30 - 130	30	
4-Nitroaniline	ND	230	59	59	0.0	45	52	14.4	30 - 130	30	
4-Nitrophenol	ND	230	52	47	10.1	47	51	8.2	30 - 130	30	
Acenaphthene	ND	230	70	71	1.4	56	65	14.9	30 - 130	30	
Acenaphthylene	ND	130	64	64	0.0	50	59	16.5	30 - 130	30	
Acetophenone	ND	230	64	62	3.2	45	59	26.9	30 - 130	30	
Aniline	ND	330	67	60	11.0	37	42	12.7	30 - 130	30	
Anthracene	ND	230	68	67	1.5	55	63	13.6	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benz(a)anthracene	ND	230	71	69	2.9	59	64	8.1	30 - 130	30	
Benzidine	ND	330	50	43	15.1	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	66	66	0.0	51	56	9.3	30 - 130	30	
Benzo(b)fluoranthene	ND	160	72	69	4.3	57	63	10.0	30 - 130	30	
Benzo(ghi)perylene	ND	230	57	64	11.6	29	42	36.6	30 - 130	30	m,r
Benzo(k)fluoranthene	ND	230	69	67	2.9	61	61	0.0	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	13	23	55.6	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	70	66	5.9	51	63	21.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	73	71	2.8	55	67	19.7	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	52	59	12.6	37	53	35.6	30 - 130	30	r
Bis(2-chloroisopropyl)ether	ND	230	47	46	2.2	33	43	26.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	73	73	0.0	56	71	23.6	30 - 130	30	
Carbazole	ND	230	73	71	2.8	58	66	12.9	30 - 130	30	
Chrysene	ND	230	70	71	1.4	62	67	7.8	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	65	69	6.0	33	49	39.0	30 - 130	30	r
Dibenzofuran	ND	230	69	68	1.5	55	62	12.0	30 - 130	30	
Diethyl phthalate	ND	230	67	68	1.5	50	59	16.5	30 - 130	30	
Dimethylphthalate	ND	230	67	68	1.5	51	60	16.2	30 - 130	30	
Di-n-butylphthalate	ND	670	72	70	2.8	50	62	21.4	30 - 130	30	
Di-n-octylphthalate	ND	230	72	71	1.4	50	63	23.0	30 - 130	30	
Fluoranthene	ND	230	69	66	4.4	65	61	6.3	30 - 130	30	
Fluorene	ND	230	68	69	1.5	55	62	12.0	30 - 130	30	
Hexachlorobenzene	ND	130	62	60	3.3	45	56	21.8	30 - 130	30	
Hexachlorobutadiene	ND	230	64	63	1.6	45	61	30.2	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	56	56	0.0	39	47	18.6	30 - 130	30	
Hexachloroethane	ND	130	53	51	3.8	35	47	29.3	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	62	68	9.2	33	47	35.0	30 - 130	30	r
Isophorone	ND	130	63	62	1.6	47	57	19.2	30 - 130	30	
Naphthalene	ND	230	68	66	3.0	59	66	11.2	30 - 130	30	
Nitrobenzene	ND	130	58	57	1.7	42	53	23.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	55	52	5.6	39	53	30.4	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	61	58	5.0	43	54	22.7	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	72	71	1.4	53	62	15.7	30 - 130	30	
Pentachloronitrobenzene	ND	230	63	62	1.6	46	57	21.4	30 - 130	30	
Pentachlorophenol	ND	230	13	11	16.7	40	44	9.5	30 - 130	30	l
Phenanthrene	ND	130	68	67	1.5	71	63	11.9	30 - 130	30	
Phenol	ND	230	72	71	1.4	50	62	21.4	30 - 130	30	
Pyrene	ND	230	70	67	4.4	63	62	1.6	30 - 130	30	
Pyridine	ND	230	42	40	4.9	29	44	41.1	30 - 130	30	m,r
% 2,4,6-Tribromophenol	41	%	46	43	6.7	38	44	14.6	30 - 130	30	
% 2-Fluorobiphenyl	63	%	65	65	0.0	49	60	20.2	30 - 130	30	
% 2-Fluorophenol	52	%	62	61	1.6	42	54	25.0	30 - 130	30	
% Nitrobenzene-d5	58	%	59	58	1.7	42	54	25.0	30 - 130	30	
% Phenol-d5	60	%	69	68	1.5	47	58	21.0	30 - 130	30	
% Terphenyl-d14	66	%	72	69	4.3	50	62	21.4	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 407576 (ug/kg), QC Sample No: BZ28848 (BZ28212)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	41	44	7.1	37	47	23.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	38	42	10.0	34	46	30.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichlorobenzene	ND	180	34	39	13.7	31	43	32.4	30 - 130	30	r
1,2-Diphenylhydrazine	ND	230	47	50	6.2	40	53	28.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	32	37	14.5	29	41	34.3	30 - 130	30	m,r
1,4-Dichlorobenzene	ND	230	35	40	13.3	32	44	31.6	30 - 130	30	r
2,4,5-Trichlorophenol	ND	230	44	47	6.6	38	48	23.3	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	43	44	2.3	37	47	23.8	30 - 130	30	
2,4-Dichlorophenol	ND	130	43	47	8.9	38	50	27.3	30 - 130	30	
2,4-Dimethylphenol	ND	230	44	49	10.8	41	52	23.7	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	33	22	40.0	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130	46	49	6.3	38	49	25.3	30 - 130	30	
2,6-Dinitrotoluene	ND	130	44	48	8.7	37	51	31.8	30 - 130	30	r
2-Chloronaphthalene	ND	230	42	45	6.9	37	48	25.9	30 - 130	30	
2-Chlorophenol	ND	230	39	43	9.8	34	47	32.1	30 - 130	30	r
2-Methylnaphthalene	ND	230	39	44	12.0	37	47	23.8	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	43	48	11.0	40	51	24.2	30 - 130	30	
2-Nitroaniline	ND	330	66	67	1.5	54	71	27.2	30 - 130	30	
2-Nitrophenol	ND	230	40	44	9.5	35	47	29.3	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	44	47	6.6	37	49	27.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	48	53	9.9	42	54	25.0	30 - 130	30	
3-Nitroaniline	ND	330	53	59	10.7	45	59	26.9	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	45	35	25.0	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	43	48	11.0	36	49	30.6	30 - 130	30	r
4-Chloro-3-methylphenol	ND	230	47	52	10.1	43	54	22.7	30 - 130	30	
4-Chloroaniline	ND	230	49	55	11.5	42	55	26.8	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	43	46	6.7	36	48	28.6	30 - 130	30	
4-Nitroaniline	ND	230	47	51	8.2	40	52	26.1	30 - 130	30	
4-Nitrophenol	ND	230	47	46	2.2	41	53	25.5	30 - 130	30	
Acenaphthene	ND	230	47	51	8.2	41	52	23.7	30 - 130	30	
Acenaphthylene	ND	130	41	45	9.3	36	47	26.5	30 - 130	30	
Acetophenone	ND	230	39	44	12.0	34	48	34.1	30 - 130	30	r
Aniline	ND	330	39	42	7.4	32	43	29.3	30 - 130	30	
Anthracene	ND	230	45	49	8.5	37	49	27.9	30 - 130	30	
Benz(a)anthracene	ND	230	45	49	8.5	38	48	23.3	30 - 130	30	
Benzidine	ND	330	28	29	3.5	11	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	43	46	6.7	35	44	22.8	30 - 130	30	
Benzo(b)fluoranthene	ND	160	46	52	12.2	38	51	29.2	30 - 130	30	
Benzo(ghi)perylene	ND	230	48	54	11.8	26	30	14.3	30 - 130	30	m
Benzo(k)fluoranthene	ND	230	44	47	6.6	37	48	25.9	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	31	13	81.8	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	48	51	6.1	41	51	21.7	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	42	47	11.2	38	51	29.2	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	34	41	18.7	30	38	23.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	35	38	8.2	30	42	33.3	30 - 130	30	r
Bis(2-ethylhexyl)phthalate	ND	230	47	51	8.2	40	50	22.2	30 - 130	30	
Carbazole	ND	230	46	51	10.3	39	50	24.7	30 - 130	30	
Chrysene	ND	230	46	50	8.3	38	49	25.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	47	53	12.0	30	36	18.2	30 - 130	30	
Dibenzofuran	ND	230	43	47	8.9	38	49	25.3	30 - 130	30	
Diethyl phthalate	ND	230	45	47	4.3	38	48	23.3	30 - 130	30	
Dimethylphthalate	ND	230	44	47	6.6	37	50	29.9	30 - 130	30	
Di-n-butylphthalate	ND	670	49	53	7.8	38	50	27.3	30 - 130	30	
Di-n-octylphthalate	ND	230	49	52	5.9	39	49	22.7	30 - 130	30	
Fluoranthene	ND	230	45	48	6.5	35	45	25.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28211

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Fluorene	ND	230	46	49	6.3	40	51	24.2	30 - 130	30	
Hexachlorobenzene	ND	130	46	50	8.3	39	46	16.5	30 - 130	30	
Hexachlorobutadiene	ND	230	39	42	7.4	35	44	22.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	36	38	5.4	29	32	9.8	30 - 130	30	m
Hexachloroethane	ND	130	33	39	16.7	29	40	31.9	30 - 130	30	m,r
Indeno(1,2,3-cd)pyrene	ND	230	46	51	10.3	29	32	9.8	30 - 130	30	m
Isophorone	ND	130	41	44	7.1	35	47	29.3	30 - 130	30	
Naphthalene	ND	230	40	44	9.5	36	48	28.6	30 - 130	30	
Nitrobenzene	ND	130	40	45	11.8	35	48	31.3	30 - 130	30	r
N-Nitrosodimethylamine	ND	230	29	36	21.5	29	38	26.9	30 - 130	30	l,m
N-Nitrosodi-n-propylamine	ND	130	42	47	11.2	35	49	33.3	30 - 130	30	r
N-Nitrosodiphenylamine	ND	130	45	49	8.5	38	49	25.3	30 - 130	30	
Pentachloronitrobenzene	ND	230	44	49	10.8	37	48	25.9	30 - 130	30	
Pentachlorophenol	ND	230	25	20	22.2	44	44	0.0	30 - 130	30	l
Phenanthrene	ND	130	44	49	10.8	38	48	23.3	30 - 130	30	
Phenol	ND	230	47	51	8.2	40	54	29.8	30 - 130	30	
Pyrene	ND	230	46	49	6.3	36	45	22.2	30 - 130	30	
Pyridine	ND	230	21	25	17.4	21	24	13.3	30 - 130	30	l,m
% 2,4,6-Tribromophenol	51	%	51	54	5.7	43	58	29.7	30 - 130	30	
% 2-Fluorobiphenyl	44	%	43	45	4.5	37	49	27.9	30 - 130	30	
% 2-Fluorophenol	37	%	38	41	7.6	33	46	32.9	30 - 130	30	r
% Nitrobenzene-d5	41	%	41	44	7.1	36	50	32.6	30 - 130	30	r
% Phenol-d5	42	%	41	45	9.3	36	48	28.6	30 - 130	30	
% Terphenyl-d14	48	%	45	47	4.3	34	44	25.6	30 - 130	30	

Comment:

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

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

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

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

Phyllis Shiller, Laboratory Director
November 03, 2017

Friday, November 03, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ28211 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ28213	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	29	7	7	ug/Kg
BZ28213	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	58	40	40	ug/Kg
BZ28213	$8270-SMR	4-Chloroaniline	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3500	3100	3100	ug/Kg
BZ28213	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	200	200	ug/Kg
BZ28213	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ28213	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2100	200	200	ug/Kg
BZ28213	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2400	200	200	ug/Kg
BZ28213	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3500	1400	1400	ug/Kg
BZ28213	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2300	900	900	ug/Kg
BZ28213	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2900	900	900	ug/Kg
BZ28213	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3000	770	770	ug/Kg
BZ28213	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6200	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2000	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7800	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1400	1400	ug/Kg
BZ28213	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	3700	2000	2000	ug/Kg
BZ28213	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5200	2000	2000	ug/Kg
BZ28213	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ28213	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ28213	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	5200	2000	2000	ug/Kg
BZ28213	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg
BZ28213	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ28213	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	2900	1000	1000	ug/Kg
BZ28213	$8270-SMR	4-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2500	2000	2000	ug/Kg
BZ28213	$8270-SMR	2,4-Dinitrophenol	CT / RSR GB (mg/kg) / APS Organics	ND	3700	2800	2800	ug/Kg
BZ28213	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ28213	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ28213	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ28213	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ28213	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2800	1400	1400	ug/Kg
BZ28213	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	7800	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1200	1200	ug/Kg
BZ28213	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	2600	1000	1000	ug/Kg
BZ28213	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ28213	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	3000	1000	1000	ug/Kg
BZ28213	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1000	1000	ug/Kg
BZ28213	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	2200	1400	1400	ug/Kg
BZ28213	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	2100	1000	1000	ug/Kg

Friday, November 03, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ28211 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ28213	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	2200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	2800	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	ND	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	2200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	7800	5200	1000	1000	ug/Kg
BZ28213	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	6200	5200	1000	1000	ug/Kg
BZ28213	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1900	280	500	500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP SITE ***Project Number:***

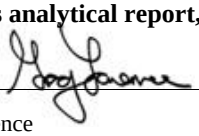
Laboratory Sample ID(s): BZ28211-BZ28213 ***Sampling Date(s):*** 10/25/2017, 10/26/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

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

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

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

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Friday, November 03, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

November 03, 2017

SDG I.D.: GBZ28211

SDG Comments

Sample BZ28213
Due to the concentration of target and/or non-target compounds not all of the requested criteria could be achieved.

Cyanide Narration

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

Instrument:

LACHAT 10/27/17-1 Dustin Harrison, Greg Danielewski, Chemist 10/27/17

BZ28211, BZ28212, BZ28213

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

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

QC (Batch Specific):

Batch 407226 (BZ26845)

BZ28211, BZ28212, BZ28213

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

ETPH Narration

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

Instrument:

AU-FID1 10/30/17-1 Jeff Bucko, Chemist 10/30/17

BZ28213

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 10/27/17-1 Jeff Bucko, Chemist 10/27/17

BZ28211, BZ28212

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

QC (Batch Specific):

Batch 407379 (BZ27948)

BZ28211, BZ28212, BZ28213

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

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ETPH Narration

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

Mercury Narration

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

Instrument:

MERLIN 10/27/17 09:16 Rick Schweitzer, Chemist 10/27/17

BZ28211, BZ28212, BZ28213

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

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

BZ28211, BZ28212, BZ28213

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 407307 (BZ27085)

BZ28211, BZ28212, BZ28213

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

Batch 407515 (BZ28754)

BZ28211, BZ28212, BZ28213

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

PHOENIX

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SDG I.D.: GBZ28211

Mercury Narration

125%.

ICP Metals Narration

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

QC Batch 407383 (Samples: BZ28211, BZ28212, BZ28213): -----

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (Soil- Zinc(BZ28211, BZ28212, BZ28213))

Instrument:

ARCOS 10/28/17 07:09 Mike Arsenault, Chemist 10/28/17

BZ28211, BZ28212, BZ28213

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

ARCOS 10/30/17 11:48 Mike Arsenault, Chemist 10/30/17

BZ28211, BZ28212, BZ28213

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

BLUE 10/27/17 07:22 Mike Arsenault, Chemist 10/27/17

BZ28211, BZ28212, BZ28213

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

QC (Batch Specific):

Batch 407309 (BZ27900)

BZ28211, BZ28212, BZ28213

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

Batch 407383 (BZ28416)

BZ28211, BZ28212, BZ28213

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SDG I.D.: GBZ28211

ICP Metals Narration

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

SVOA Narration

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

QC Batch 407344 (Samples: BZ28211, BZ28213): -----

The LCS/LCSD recovery for two analytes is below the method criteria. The Batch MS/MSD is acceptable. A low bias for these analytes is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol,)

The LCS/LCSD recovery is below the lower range, but within the method criteria. The Batch MS/MSD recovery is acceptable. A low bias for this analyte is possible. (Pentachlorophenol)

The QC recoveries for one analyte are below the method criteria. A low bias is likely. (Benzoic Acid)

QC Batch 407576 (Samples: BZ28212): -----

The LCS/LCSD recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. A low bias for these analytes is possible. (2,4-Dinitrophenol, Benzoic Acid)

The LCS and Batch MS recovery are below the lower range but within the method criteria. The LCSD and Batch MSD are acceptable. A slight low bias is possible. (N-Nitrosodimethylamine)

The LCS/LCSD recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. A low bias is possible. (4,6-Dinitro-2-methylphenol)

The LCS/LCSD recovery is below the lower range but within the method criteria. The Batch MS/MSD recovery is acceptable. A low bias is possible. (Pentachlorophenol)

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

Instrument:

CHEM19 10/31/17-1 Damien Drobinski, Chemist 10/31/17

BZ28213

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_1023):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 57% (20%), 4,6-Dinitro-2-methylphenol 22% (20%), Hexachlorocyclopentadiene 21% (20%), Pentachlorophenol 39% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1), Hexachlorobenzene 0.070 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1031_02-SPLIT_1023):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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November 03, 2017

SDG I.D.: GBZ28211

SVOA Narration

97% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 46%H (30%), 2-Nitroaniline 32%L (30%), Pentachlorophenol 48%H (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 46%H (40%), Pentachlorophenol 48%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.060 (0.1), Hexachlorobenzene 0.069 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 10/30/17-1 Damien Drobinski, Chemist 10/30/17

BZ28212

Initial Calibration Verification (CHEM27/SPLIT_1020):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2-Nitrophenol 27% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1), Bis(2-chloroethoxy)methane 0.286 (0.3), Hexachlorobenzene 0.091 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/1030_04-SPLIT_1020):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.085 (0.1), Bis(2-chloroethoxy)methane 0.252 (0.3), Hexachlorobenzene 0.081 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 10/27/17-1 Damien Drobinski, Chemist 10/27/17

BZ28211

Initial Calibration Verification (CHEM29/SPLIT_1020):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dimethylphenol 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 (CHEM29/1027_06-SPLIT_1020):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
95% of target compounds met criteria.
The following compounds did not meet % deviation criteria: % 2,4,6-Tribromophenol 32%L (30%), 2-Nitroaniline 40%L (30%), Pentachlorophenol 47%L (30%)
The following compounds did not meet maximum % deviations: Pentachlorophenol 47%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.095 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 407344 (BZ28484)

BZ28211, BZ28213

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(13%)

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RCP Certification Report

November 03, 2017

SDG I.D.: GBZ28211

SVOA Narration

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(11%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 407576 (BZ28848)

BZ28212

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(28%), Benzoic Acid(<10%), N-Nitrosodimethylamine(29%), Pentachlorophenol(25%), Pyridine(21%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzidine(29%), Benzoic Acid(<10%), Pentachlorophenol(20%), Pyridine(25%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
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 407592 (Samples: BZ28211, BZ28212): -----

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

QC Batch 407597 (Samples: BZ28213): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (2,2-Dichloropropane, cis-1,3-Dichloropropene, Naphthalene, trans-1,3-Dichloropropene)

Instrument:

CHEM14 10/27/17-2 Jane Li, Chemist 10/27/17

BZ28211, BZ28212

Initial Calibration Verification (CHEM14/VT-1022):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 27% (20%), Naphthalene 23% (20%), trans-1,4-dichloro-2-butene 29% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1027_31-VT-1022):
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.

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

November 03, 2017

SDG I.D.: GBZ28211

VOA Narration

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

CHEM14 10/29/17-1 Jane Li, Chemist 10/29/17

BZ28213

Initial Calibration Verification (CHEM14/VT-1022):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 27% (20%), Naphthalene 23% (20%), trans-1,4-dichloro-2-butene 29% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1029_02-VT-1022):
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.

QC (Batch Specific):

Batch 407592 (BZ28471)

BZ28211, BZ28212

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromoform(131%), Dibromochloromethane(133%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 407597 (BZ28315)

BZ28213

All LCS recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(135%), cis-1,3-Dichloropropene(135%), Naphthalene(136%), trans-1,3-Dichloropropene(132%)
All LCSD recoveries were within 70 - 130 with the following exceptions: cis-1,3-Dichloropropene(131%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
The MS/MSD are not reported for this batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 2.0 °C Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: LEwilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Suite 1100
Middletown CT

Project: Rockville MGP S.tc
Report to: Lynn Willey
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 10/25/17

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	CT ETPH	RCRA metals	SPLP RCRA metals	Total Cyanide	Soil VOA Vials & methanol [ ] H2O	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 (as is)	Bacteria (w/thio)
28211	MW-17S (9-10)	S	10/25/17	12:00	X	X	X	X	X	X					3	1				
28212	SB-10 (5-7)	S	10/25/17	14:30	X	X	X	X	X	X					3	1				
28213	MW-18R (11-13')	S	10/26/17	09:00	X	X	X	X	X	X					3	1				

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Krystal Bauer	10/26/17	20:02

Comments, Special Requirements or Regulations:
Quote: T10251703A
DAS Pricing

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 e-each

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

Page 39 of 39

PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 07, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ28622 - BZ28624

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 07, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/27/17	9:15
Location Code:	TIGHE-DAS	Received by:	SW	10/27/17	15:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755044				

Laboratory Data

SDG ID: GBZ28622
Phoenix ID: BZ28622

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.47	0.47	mg/Kg	1	10/28/17	MA	SW6010C	
Arsenic	13.8	0.94	mg/Kg	1	10/28/17	MA	SW6010C	
Barium	130	0.47	mg/Kg	1	10/28/17	MA	SW6010C	
Beryllium	0.52	0.38	mg/Kg	1	10/28/17	MA	SW6010C	
Cadmium	3.50	0.47	mg/Kg	1	10/28/17	MA	SW6010C	
Chromium	19.1	0.47	mg/Kg	1	10/28/17	MA	SW6010C	
Copper	41.6	0.47	mg/kg	1	10/28/17	MA	SW6010C	
Mercury	0.29	0.04	mg/Kg	1	10/30/17	RS	SW7471B	
Nickel	13.1	0.47	mg/Kg	1	10/28/17	MA	SW6010C	
Lead	5180	47	mg/Kg	100	10/30/17	MA	SW6010C	B
Antimony	< 4.7	4.7	mg/Kg	1	10/28/17	MA	SW6010C	
Selenium	< 1.9	1.9	mg/Kg	1	10/30/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C	
SPLP Barium	0.041	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/31/17	EK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Copper	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	10/31/17	RS	SW7470A	
SPLP Nickel	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Lead	0.101	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Antimony	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C	
SPLP Thallium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Zinc	0.232	0.010	mg/L	1	10/31/17	EK	SW6010C	
Thallium	< 4.3	4.3	mg/Kg	1	10/28/17	MA	SW6010C	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Phoenix I.D.: BZ28622

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Vanadium	33.9	0.47	mg/Kg	1	10/28/17	MA	SW6010C
Zinc	1990	47	mg/Kg	100	10/30/17	MA	SW6010C
Percent Solid	67		%		10/27/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	4.15	0.75	mg/Kg	1	10/31/17	EG	SW9012B
Soil Extraction for SVOA	Completed				10/27/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	CC/V	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				10/30/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				10/27/17	W	SW1312
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4100	360	mg/Kg	5	11/01/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/01/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	11/01/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	11/01/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	11/01/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,1-Dichloroethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,1-Dichloroethene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,1-Dichloropropene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,2,4-Trimethylbenzene	8000	4900	ug/Kg	500	11/03/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	99	ug/Kg	50	11/01/17	JLI	SW8260C
1,2-Dibromoethane	ND	49	ug/Kg	50	11/01/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	50	11/01/17	JLI	SW8260C
1,2-Dichloropropane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,3,5-Trimethylbenzene	2800	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,3-Dichloropropane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
2,2-Dichloropropane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
2-Chlorotoluene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
2-Hexanone	ND	2500	ug/Kg	50	11/01/17	JLI	SW8260C
2-Isopropyltoluene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
4-Chlorotoluene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	2500	ug/Kg	50	11/01/17	JLI	SW8260C
Acetone	ND	25000	ug/Kg	50	11/01/17	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	11/01/17	JLI	SW8260C
Benzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Bromobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Bromochloromethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Phoenix I.D.: BZ28622

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	210	ug/Kg	50	11/01/17	JLI	SW8260C
Bromoform	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Bromomethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Carbon Disulfide	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Carbon tetrachloride	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Chlorobenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Chloroethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Chloroform	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Chloromethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	11/01/17	JLI	SW8260C
Dibromomethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Dichlorodifluoromethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Ethylbenzene	1500	490	ug/Kg	50	11/01/17	JLI	SW8260C
Hexachlorobutadiene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Isopropylbenzene	690	490	ug/Kg	50	11/01/17	JLI	SW8260C
m&p-Xylene	2900	490	ug/Kg	50	11/01/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	11/01/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	990	ug/Kg	50	11/01/17	JLI	SW8260C
Methylene chloride	ND	990	ug/Kg	50	11/01/17	JLI	SW8260C
Naphthalene	91000	4900	ug/Kg	500	11/03/17	JLI	SW8260C
n-Butylbenzene	300	300	ug/Kg	50	11/01/17	JLI	SW8260C
n-Propylbenzene	290	250	ug/Kg	50	11/01/17	JLI	SW8260C
o-Xylene	2400	490	ug/Kg	50	11/01/17	JLI	SW8260C
p-Isopropyltoluene	1300	490	ug/Kg	50	11/01/17	JLI	SW8260C
sec-Butylbenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Styrene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
tert-Butylbenzene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Tetrachloroethene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	800	ug/Kg	50	11/01/17	JLI	SW8260C
Toluene	400	390	ug/Kg	50	11/01/17	JLI	SW8260C
Total Xylenes	5300	490	ug/Kg	50	11/01/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	990	ug/Kg	50	11/01/17	JLI	SW8260C
Trichloroethene	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Trichlorofluoromethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	490	ug/Kg	50	11/01/17	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	50	11/01/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	50	11/01/17	JLI	70 - 130 %
% Bromofluorobenzene	101		%	50	11/01/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	50	11/01/17	JLI	70 - 130 %
% Toluene-d8	99		%	50	11/01/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1200	ug/Kg	10	10/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3100	ug/Kg	10	10/28/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Phoenix I.D.: BZ28622

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	2000	ug/Kg	10	10/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1600	ug/Kg	10	10/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	10/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1900	ug/Kg	10	10/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1500	ug/Kg	10	10/28/17	DD	SW8270D
2-Chloronaphthalene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2-Chlorophenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2-Methylnaphthalene	93000	3400	ug/Kg	10	10/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2-Nitroaniline	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
2-Nitrophenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	4900	ug/Kg	10	10/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	2300	ug/Kg	10	10/28/17	DD	SW8270D
3-Nitroaniline	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2400	ug/Kg	10	10/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4900	ug/Kg	10	10/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
4-Chloroaniline	ND	2300	ug/Kg	10	10/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	10/28/17	DD	SW8270D
4-Nitrophenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Acenaphthene	33000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Acenaphthylene	8200	3400	ug/Kg	10	10/28/17	DD	SW8270D
Acetophenone	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Aniline	ND	2000	ug/Kg	10	10/28/17	DD	SW8270D
Anthracene	16000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benz(a)anthracene	10000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benzidine	ND	2000	ug/Kg	10	10/28/17	DD	SW8270D
Benzo(a)pyrene	9600	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benzo(b)fluoranthene	5000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benzo(ghi)perylene	5200	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benzo(k)fluoranthene	5600	3400	ug/Kg	10	10/28/17	DD	SW8270D
Benzoic acid	ND	9800	ug/Kg	10	10/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1300	ug/Kg	10	10/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	10/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Carbazole	ND	2000	ug/Kg	10	10/28/17	DD	SW8270D
Chrysene	12000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Dibenzofuran	ND	1400	ug/Kg	10	10/28/17	DD	SW8270D
Diethyl phthalate	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Dimethylphthalate	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Phoenix I.D.: BZ28622

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	9800	ug/Kg	10	10/28/17	DD	SW8270D
Di-n-octylphthalate	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Fluoranthene	19000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Fluorene	13000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Hexachlorobenzene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Hexachlorobutadiene	ND	1800	ug/Kg	10	10/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Hexachloroethane	ND	1500	ug/Kg	10	10/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	4600	3400	ug/Kg	10	10/28/17	DD	SW8270D
Isophorone	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Naphthalene	84000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Nitrobenzene	ND	1700	ug/Kg	10	10/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1400	ug/Kg	10	10/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1600	ug/Kg	10	10/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1900	ug/Kg	10	10/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	1500	ug/Kg	10	10/28/17	DD	SW8270D
Pentachlorophenol	ND	1800	ug/Kg	10	10/28/17	DD	SW8270D
Phenanthrene	58000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Phenol	ND	3400	ug/Kg	10	10/28/17	DD	SW8270D
Pyrene	30000	3400	ug/Kg	10	10/28/17	DD	SW8270D
Pyridine	ND	1200	ug/Kg	10	10/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	10/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	10/28/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	10/28/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	10/28/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	10/28/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	10/28/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-11 (5-7)

Phoenix I.D.: BZ28622

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

B = Present in blank, no bias suspected.

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

Comments:

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

Semi-Volatile Comment:
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.

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.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 07, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

November 07, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/27/17	11:00
Location Code:	TIGHE-DAS	Received by:	SW	10/27/17	15:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755044				

Laboratory Data

SDG ID: GBZ28622
Phoenix ID: BZ28623

Project ID: ROCKVILLE MGP
Client ID: SB-04 (18-20)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.31	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Arsenic	0.70	0.61	mg/Kg	1	10/28/17	MA	SW6010C	
Barium	32.8	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Beryllium	0.29	0.25	mg/Kg	1	10/28/17	MA	SW6010C	
Cadmium	< 0.31	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Chromium	9.62	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Copper	12.0	0.31	mg/kg	1	10/28/17	MA	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B	
Nickel	9.76	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Lead	5.17	0.31	mg/Kg	1	10/28/17	MA	SW6010C	B
Antimony	< 3.1	3.1	mg/Kg	1	10/28/17	MA	SW6010C	
Selenium	< 1.2	1.2	mg/Kg	1	10/30/17	MA	SW6010C	
Thallium	< 2.8	2.8	mg/Kg	1	10/28/17	MA	SW6010C	
Vanadium	16.6	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Zinc	18.8	0.31	mg/Kg	1	10/28/17	MA	SW6010C	
Percent Solid	96		%		10/27/17	Q	SW846-%Solid	
Total Cyanide (SW9010C Distill.)	< 0.52	0.52	mg/Kg	1	10/31/17	EG	SW9012B	
Soil Extraction for SVOA	Completed				10/27/17	BJ/CKV	SW3545A	
Extraction of CT ETPH	Completed				10/30/17	CC/V	SW3545A	
Mercury Digestion	Completed				10/30/17	W/W	SW7471B	
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B	
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	ND	260	mg/Kg	5	11/01/17	JRB	CTETPH 8015D	
Identification	ND		mg/Kg	5	11/01/17	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	102		%	5	11/01/17	JRB	50 - 150 %	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-04 (18-20)

Phoenix I.D.: BZ28623

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	10/31/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
2-Chlorotoluene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	10/31/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
4-Chlorotoluene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	10/31/17	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	10/31/17	JLI	SW8260C
Acrylonitrile	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Benzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Bromobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Bromochloromethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Bromodichloromethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Bromoform	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Bromomethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Carbon Disulfide	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Carbon tetrachloride	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Chlorobenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Chloroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Chloroform	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Chloromethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	10/31/17	JLI	SW8260C
Dibromomethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Ethylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Isopropylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-04 (18-20)

Phoenix I.D.: BZ28623

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	10/31/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	10/31/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	10/31/17	JLI	SW8260C
Naphthalene	9.6	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
n-Butylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
n-Propylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
o-Xylene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
sec-Butylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Styrene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
tert-Butylbenzene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Tetrachloroethene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	10/31/17	JLI	SW8260C
Toluene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Total Xylenes	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	10/31/17	JLI	SW8260C
Trichloroethene	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
Vinyl chloride	ND	5.4	ug/Kg	1	10/31/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	10/31/17	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/31/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/31/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/31/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	10/28/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-04 (18-20)

Phoenix I.D.: BZ28623

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthylene	1600	240	ug/Kg	1	10/28/17	DD	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Aniline	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(a)pyrene	820	240	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(b)fluoranthene	340	240	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(ghi)perylene	800	240	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(k)fluoranthene	270	240	ug/Kg	1	10/28/17	DD	SW8270D
Benzoic acid	ND	690	ug/Kg	1	10/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Carbazole	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Di-n-butylphthalate	ND	690	ug/Kg	1	10/28/17	DD	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	740	240	ug/Kg	1	10/28/17	DD	SW8270D
Isophorone	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	10/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-04 (18-20)

Phoenix I.D.: BZ28623

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Phenol	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	10/28/17	DD	SW8270D
Pyridine	ND	340	ug/Kg	1	10/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorophenol	58		%	1	10/28/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	10/28/17	DD	30 - 130 %
% Phenol-d5	64		%	1	10/28/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	10/28/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 07, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 07, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/27/17	12:50
Location Code:	TIGHE-DAS	Received by:	SW	10/27/17	15:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755044				

Laboratory Data

SDG ID: GBZ28622
Phoenix ID: BZ28624

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.36	0.36	mg/Kg	1	10/28/17	MA	SW6010C	
Arsenic	1.31	0.73	mg/Kg	1	10/28/17	MA	SW6010C	
Barium	7.93	0.36	mg/Kg	1	10/28/17	MA	SW6010C	
Beryllium	< 0.29	0.29	mg/Kg	1	10/28/17	MA	SW6010C	
Cadmium	0.50	0.36	mg/Kg	1	10/28/17	MA	SW6010C	
Chromium	10.5	0.36	mg/Kg	1	10/28/17	MA	SW6010C	
Copper	6.08	0.36	mg/kg	1	10/28/17	MA	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	10/30/17	RS	SW7471B	
Nickel	3.37	0.36	mg/Kg	1	10/28/17	MA	SW6010C	
Lead	6.15	0.36	mg/Kg	1	10/28/17	MA	SW6010C	B
Antimony	< 3.6	3.6	mg/Kg	1	10/28/17	MA	SW6010C	
Selenium	< 1.5	1.5	mg/Kg	1	10/30/17	MA	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Arsenic	< 0.004	0.004	mg/L	1	10/31/17	EK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Beryllium	< 0.001	0.001	mg/L	1	10/31/17	EK	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Copper	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/03/17	RS	SW7470A	
SPLP Nickel	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Lead	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Antimony	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	10/31/17	EK	SW6010C	
SPLP Thallium	< 0.005	0.005	mg/L	1	10/31/17	EK	SW6010C	
SPLP Vanadium	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
SPLP Zinc	< 0.010	0.010	mg/L	1	10/31/17	EK	SW6010C	
Thallium	< 3.3	3.3	mg/Kg	1	10/28/17	MA	SW6010C	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Phoenix I.D.: BZ28624

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				10/30/17	W/W	SW3005A
Vanadium	32.1	0.36	mg/Kg	1	10/28/17	MA	SW6010C
Zinc	9.45	0.36	mg/Kg	1	10/28/17	MA	SW6010C
Percent Solid	85		%		10/27/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	10/31/17	EG	SW9012B
Soil Extraction for SVOA	Completed				10/27/17	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/30/17	CC/V	SW3545A
Mercury Digestion	Completed				10/30/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				11/03/17	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/02/17	W	SW1312
Total Metals Digest	Completed				10/27/17	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	11/01/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	11/01/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	58		%	1	11/01/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	1	10/29/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
2-Chlorotoluene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	10/29/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
4-Chlorotoluene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	10/29/17	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	10/29/17	JLI	SW8260C
Acrylonitrile	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Benzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Bromobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Bromochloromethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Phoenix I.D.: BZ28624

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Bromoform	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Bromomethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Carbon Disulfide	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Carbon tetrachloride	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Chlorobenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Chloroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Chloroform	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Chloromethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Dibromochloromethane	ND	3.5	ug/Kg	1	10/29/17	JLI	SW8260C
Dibromomethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Ethylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Isopropylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
m&p-Xylene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	35	ug/Kg	1	10/29/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	10/29/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	10/29/17	JLI	SW8260C
Naphthalene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
n-Butylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
n-Propylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
o-Xylene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
sec-Butylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Styrene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
tert-Butylbenzene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Tetrachloroethene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	10/29/17	JLI	SW8260C
Toluene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Total Xylenes	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	10/29/17	JLI	SW8260C
Trichloroethene	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
Vinyl chloride	ND	5.8	ug/Kg	1	10/29/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	10/29/17	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	10/29/17	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/29/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/29/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Phoenix I.D.: BZ28624

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrophenol	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitroaniline	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
3-Nitroaniline	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitroaniline	ND	620	ug/Kg	1	10/28/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Aniline	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Benzoic acid	ND	780	ug/Kg	1	10/28/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Carbazole	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	10/28/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Phoenix I.D.: BZ28624

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	780	ug/Kg	1	10/28/17	DD	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	10/28/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Pentachloronitrobenzene	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Phenol	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	10/28/17	DD	SW8270D
Pyridine	ND	390	ug/Kg	1	10/28/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	10/28/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	10/28/17	DD	30 - 130 %
% Nitrobenzene-d5	60		%	1	10/28/17	DD	30 - 130 %
% Phenol-d5	66		%	1	10/28/17	DD	30 - 130 %
% Terphenyl-d14	67		%	1	10/28/17	DD	30 - 130 %
Field Extraction	Completed				10/27/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-16S (8-10)

Phoenix I.D.: BZ28624

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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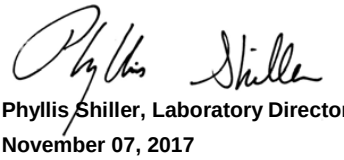

Phyllis Shiller, Laboratory Director
November 07, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

November 07, 2017

QA/QC Data

SDG I.D.: GBZ28622

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 407530 (mg/kg), QC Sample No: BZ28470 (BZ28622, BZ28623, BZ28624)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	93.7	94.2	0.5	94.1			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%.													
QA/QC Batch 407394 (mg/kg), QC Sample No: BZ28481 (BZ28622, BZ28623, BZ28624)													
ICP Metals - Soil													
Antimony	BRL	3.0	<3.8	<4.0	NC	102			81.1			75 - 125	30
Arsenic	BRL	0.60	2.69	2.35	NC	100			81.0			75 - 125	30
Barium	BRL	0.30	63.8	65.2	2.20	105			112			75 - 125	30
Beryllium	BRL	0.24	0.46	0.42	NC	108			95.3			75 - 125	30
Cadmium	BRL	0.30	<0.38	<0.40	NC	104			91.0			75 - 125	30
Chromium	BRL	0.30	18.5	13.9	28.4	106			96.1			75 - 125	30
Copper	BRL	0.30	18.9	16.9	11.2	112			106			75 - 125	30
Lead	0.36	0.30	54.3	58.8	8.00	114			110			75 - 125	30
Nickel	BRL	0.30	14.0	12.4	12.1	106			94.2			75 - 125	30
Selenium	BRL	1.2	<1.5	<1.6	NC	90.6			91.4			75 - 125	30
Silver	BRL	0.30	<0.38	<0.40	NC	99.2			95.6			75 - 125	30
Thallium	BRL	2.7	<3.4	<3.6	NC	110			97.9			75 - 125	30
Vanadium	BRL	0.30	29.7	24.8	18.0	111			95.4			75 - 125	30
Zinc	BRL	0.30	58.6	62.5	6.40	105			94.4			75 - 125	30
QA/QC Batch 407516 (mg/L), QC Sample No: BZ28524 (BZ28622)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	90.4			93.0			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 407518 (mg/L), QC Sample No: BZ28624 (BZ28622, BZ28624)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	102			102			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	104			104			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	106			106			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	105			105			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	103			104			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	105			105			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	108			108			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	96.7			97.1			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	103			103			75 - 125	20
Vanadium	BRL	0.010	<0.010	<0.010	NC	101			101			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	104			103			75 - 125	20
QA/QC Batch 408216 (mg/L), QC Sample No: BZ31274 (BZ28624)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	96.2			95.1			80 - 120	20

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

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QA/QC Report

November 07, 2017

QA/QC Data

SDG I.D.: GBZ28622

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 407617 (mg/Kg), QC Sample No: BZ29264 50X (BZ28622, BZ28623, BZ28624)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.59	NC	97.4			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

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QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 407920 (ug/kg), QC Sample No: BZ28579 (BZ28623)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	102	105	2.9	96	97	1.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	99	102	3.0	95	97	2.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	100	2.0	99	99	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	94	97	3.1	93	95	2.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	102	1.0	93	101	8.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	98	99	1.0	95	96	1.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	99	99	0.0	94	94	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	100	100	0.0	62	54	13.8	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	91	93	2.2	95	96	1.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	101	102	1.0	65	56	14.9	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	96	96	0.0	68	63	7.6	70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	5.0	98	98	0.0	91	92	1.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	98	102	4.0	92	92	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	97	97	0.0	82	78	5.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	95	99	4.1	93	94	1.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	94	95	1.1	93	95	2.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	97	98	1.0	91	88	3.4	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	99	100	1.0	83	78	6.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	97	99	2.0	94	93	1.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	97	0.0	82	76	7.6	70 - 130	30	
2,2-Dichloropropane	ND	5.0	107	110	2.8	103	102	1.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	97	97	0.0	91	88	3.4	70 - 130	30	
2-Hexanone	ND	25	86	89	3.4	82	82	0.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	102	102	0.0	96	90	6.5	70 - 130	30	
4-Chlorotoluene	ND	5.0	98	99	1.0	89	84	5.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	94	3.2	90	89	1.1	70 - 130	30	
Acetone	ND	10	69	73	5.6	94	98	4.2	70 - 130	30	I
Acrylonitrile	ND	5.0	95	97	2.1	91	91	0.0	70 - 130	30	
Benzene	ND	1.0	95	96	1.0	93	96	3.2	70 - 130	30	
Bromobenzene	ND	5.0	97	98	1.0	90	88	2.2	70 - 130	30	
Bromochloromethane	ND	5.0	97	99	2.0	94	95	1.1	70 - 130	30	
Bromodichloromethane	ND	5.0	101	103	2.0	95	96	1.0	70 - 130	30	
Bromoform	ND	5.0	107	111	3.7	94	95	1.1	70 - 130	30	
Bromomethane	ND	5.0	93	86	7.8	89	91	2.2	70 - 130	30	
Carbon Disulfide	ND	5.0	115	117	1.7	107	107	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	108	110	1.8	97	101	4.0	70 - 130	30	
Chlorobenzene	ND	5.0	97	100	3.0	91	90	1.1	70 - 130	30	
Chloroethane	ND	5.0	90	92	2.2	89	93	4.4	70 - 130	30	
Chloroform	ND	5.0	95	99	4.1	94	94	0.0	70 - 130	30	
Chloromethane	ND	5.0	85	87	2.3	77	81	5.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	97	98	1.0	84	86	2.4	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	101	104	2.9	94	94	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	106	113	6.4	101	101	0.0	70 - 130	30	
Dibromomethane	ND	5.0	94	97	3.1	91	92	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	91	91	0.0	81	82	1.2	70 - 130	30	
Ethylbenzene	ND	1.0	98	99	1.0	92	91	1.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	100	101	1.0	65	52	22.2	70 - 130	30	m
Isopropylbenzene	ND	1.0	98	98	0.0	98	95	3.1	70 - 130	30	
m&p-Xylene	ND	2.0	97	99	2.0	82	80	2.5	70 - 130	30	
Methyl ethyl ketone	ND	5.0	84	85	1.2	83	80	3.7	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	106	111	4.6	110	108	1.8	70 - 130	30	
Methylene chloride	ND	5.0	87	89	2.3	96	98	2.1	70 - 130	30	
Naphthalene	ND	5.0	99	98	1.0	68	62	9.2	70 - 130	30	m
n-Butylbenzene	ND	1.0	101	102	1.0	82	72	13.0	70 - 130	30	
n-Propylbenzene	ND	1.0	98	99	1.0	93	88	5.5	70 - 130	30	
o-Xylene	ND	2.0	99	101	2.0	93	92	1.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	100	1.0	90	83	8.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	101	102	1.0	94	86	8.9	70 - 130	30	
Styrene	ND	5.0	97	100	3.0	87	85	2.3	70 - 130	30	
tert-Butylbenzene	ND	1.0	98	99	1.0	95	91	4.3	70 - 130	30	
Tetrachloroethene	ND	5.0	99	100	1.0	91	88	3.4	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	93	95	2.1	93	92	1.1	70 - 130	30	
Toluene	ND	1.0	96	96	0.0	92	93	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	97	100	3.0	93	94	1.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	99	102	3.0	88	89	1.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	108	109	0.9	97	96	1.0	70 - 130	30	
Trichloroethene	ND	5.0	99	99	0.0	74	73	1.4	70 - 130	30	
Trichlorofluoromethane	ND	5.0	90	94	4.3	88	90	2.2	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	109	2.8	103	102	1.0	70 - 130	30	
Vinyl chloride	ND	5.0	86	87	1.2	83	86	3.6	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	99	%	102	101	1.0	97	98	1.0	70 - 130	30	
% Dibromofluoromethane	98	%	99	99	0.0	100	96	4.1	70 - 130	30	
% Toluene-d8	98	%	100	100	0.0	100	100	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 407575 (ug/kg), QC Sample No: BZ28624 (BZ28624)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	123	121	1.6	110	111	0.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	123	121	1.6	112	113	0.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	115	112	2.6	102	105	2.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	114	112	1.8	102	101	1.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	121	124	2.4	120	120	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	121	117	3.4	115	114	0.9	70 - 130	30	
1,1-Dichloropropene	ND	5.0	124	120	3.3	110	112	1.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	115	116	0.9	72	77	6.7	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	110	107	2.8	94	96	2.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	119	118	0.8	69	74	7.0	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	114	113	0.9	95	100	5.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	116	114	1.7	96	100	4.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	114	112	1.8	102	104	1.9	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	115	112	2.6	92	98	6.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	122	118	3.3	105	106	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloropropane	ND	5.0	115	112	2.6	105	108	2.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	115	114	0.9	100	103	3.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	117	116	0.9	92	96	4.3	70 - 130	30	
1,3-Dichloropropane	ND	5.0	114	110	3.6	102	104	1.9	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	116	113	2.6	89	93	4.4	70 - 130	30	
2,2-Dichloropropane	ND	5.0	134	129	3.8	108	104	3.8	70 - 130	30	I
2-Chlorotoluene	ND	5.0	114	113	0.9	99	103	4.0	70 - 130	30	
2-Hexanone	ND	25	95	90	5.4	64	68	6.1	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	106	105	0.9	92	97	5.3	70 - 130	30	
4-Chlorotoluene	ND	5.0	114	114	0.0	94	98	4.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	102	98	4.0	82	81	1.2	70 - 130	30	
Acetone	ND	10	95	90	5.4	60	54	10.5	70 - 130	30	m
Acrylonitrile	ND	5.0	101	102	1.0	86	89	3.4	70 - 130	30	
Benzene	ND	1.0	116	113	2.6	103	106	2.9	70 - 130	30	
Bromobenzene	ND	5.0	115	113	1.8	99	104	4.9	70 - 130	30	
Bromochloromethane	ND	5.0	118	115	2.6	107	110	2.8	70 - 130	30	
Bromodichloromethane	ND	5.0	123	122	0.8	107	110	2.8	70 - 130	30	
Bromoform	ND	5.0	128	125	2.4	101	107	5.8	70 - 130	30	
Bromomethane	ND	5.0	117	110	6.2	122	113	7.7	70 - 130	30	
Carbon Disulfide	ND	5.0	125	121	3.3	111	113	1.8	70 - 130	30	
Carbon tetrachloride	ND	5.0	130	128	1.6	116	117	0.9	70 - 130	30	
Chlorobenzene	ND	5.0	115	112	2.6	102	104	1.9	70 - 130	30	
Chloroethane	ND	5.0	117	114	2.6	112	111	0.9	70 - 130	30	
Chloroform	ND	5.0	118	116	1.7	108	110	1.8	70 - 130	30	
Chloromethane	ND	5.0	98	97	1.0	87	91	4.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	119	116	2.6	108	109	0.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	126	121	4.0	101	105	3.9	70 - 130	30	
Dibromochloromethane	ND	3.0	129	126	2.4	113	116	2.6	70 - 130	30	
Dibromomethane	ND	5.0	117	111	5.3	103	103	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	109	107	1.9	98	99	1.0	70 - 130	30	
Ethylbenzene	ND	1.0	117	113	3.5	104	106	1.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	124	121	2.4	83	91	9.2	70 - 130	30	
Isopropylbenzene	ND	1.0	114	113	0.9	104	108	3.8	70 - 130	30	
m&p-Xylene	ND	2.0	115	112	2.6	101	103	2.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	102	95	7.1	66	73	10.1	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	101	99	2.0	90	89	1.1	70 - 130	30	
Methylene chloride	ND	5.0	111	109	1.8	132	124	6.3	70 - 130	30	m
Naphthalene	ND	5.0	110	109	0.9	82	85	3.6	70 - 130	30	
n-Butylbenzene	ND	1.0	122	120	1.7	89	95	6.5	70 - 130	30	
n-Propylbenzene	ND	1.0	116	114	1.7	100	103	3.0	70 - 130	30	
o-Xylene	ND	2.0	117	114	2.6	104	106	1.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	118	116	1.7	96	102	6.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	121	119	1.7	107	111	3.7	70 - 130	30	
Styrene	ND	5.0	116	113	2.6	95	99	4.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	115	114	0.9	107	110	2.8	70 - 130	30	
Tetrachloroethene	ND	5.0	122	117	4.2	103	105	1.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	98	94	4.2	83	84	1.2	70 - 130	30	
Toluene	ND	1.0	116	113	2.6	101	105	3.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	122	119	2.5	109	112	2.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	125	119	4.9	101	100	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	113	110	2.7	79	83	4.9	70 - 130	30	
Trichloroethene	ND	5.0	120	118	1.7	107	109	1.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	108	107	0.9	99	102	3.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorotrifluoroethane	ND	5.0	114	112	1.8	104	106	1.9	70 - 130	30	
Vinyl chloride	ND	5.0	105	103	1.9	96	99	3.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	101	1.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	99	%	102	102	0.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	100	%	100	101	1.0	100	99	1.0	70 - 130	30	
% Toluene-d8	100	%	101	101	0.0	101	100	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 407403 (ug/kg), QC Sample No: BZ28624 (BZ28622, BZ28623, BZ28624)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	60	64	6.5	53	59	10.7	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	55	61	10.3	53	54	1.9	30 - 130	30	
1,2-Dichlorobenzene	ND	180	55	62	12.0	51	56	9.3	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	66	67	1.5	57	64	11.6	30 - 130	30	
1,3-Dichlorobenzene	ND	230	51	59	14.5	45	49	8.5	30 - 130	30	
1,4-Dichlorobenzene	ND	230	53	61	14.0	49	53	7.8	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	66	64	3.1	56	64	13.3	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	60	62	3.3	54	63	15.4	30 - 130	30	
2,4-Dichlorophenol	ND	130	66	66	0.0	52	64	20.7	30 - 130	30	
2,4-Dimethylphenol	ND	230	70	71	1.4	56	68	19.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	65	85	26.7	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	69	71	2.9	57	63	10.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	66	69	4.4	55	64	15.1	30 - 130	30	
2-Chloronaphthalene	ND	230	64	67	4.6	58	63	8.3	30 - 130	30	
2-Chlorophenol	ND	230	63	65	3.1	50	67	29.1	30 - 130	30	
2-Methylnaphthalene	ND	230	61	64	4.8	53	60	12.4	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	73	73	0.0	54	73	29.9	30 - 130	30	
2-Nitroaniline	ND	330	93	96	3.2	74	82	10.3	30 - 130	30	
2-Nitrophenol	ND	230	62	64	3.2	56	64	13.3	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	75	71	5.5	50	68	30.5	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	70	70	0.0	67	78	15.2	30 - 130	30	
3-Nitroaniline	ND	330	79	78	1.3	62	69	10.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10	<10	NC	59	70	17.1	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	67	66	1.5	57	65	13.1	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	73	71	2.8	55	66	18.2	30 - 130	30	
4-Chloroaniline	ND	230	73	73	0.0	49	63	25.0	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	63	63	0.0	53	60	12.4	30 - 130	30	
4-Nitroaniline	ND	230	74	75	1.3	61	68	10.9	30 - 130	30	
4-Nitrophenol	ND	230	82	84	2.4	64	71	10.4	30 - 130	30	
Acenaphthene	ND	230	70	74	5.6	62	69	10.7	30 - 130	30	
Acenaphthylene	ND	130	65	68	4.5	56	63	11.8	30 - 130	30	
Acetophenone	ND	230	62	64	3.2	50	65	26.1	30 - 130	30	
Aniline	ND	330	70	68	2.9	46	54	16.0	30 - 130	30	
Anthracene	ND	230	67	69	2.9	60	65	8.0	30 - 130	30	
Benz(a)anthracene	ND	230	63	63	0.0	54	61	12.2	30 - 130	30	
Benzidine	ND	330	46	45	2.2	34	29	15.9	30 - 130	30	m
Benzo(a)pyrene	ND	130	62	63	1.6	52	60	14.3	30 - 130	30	
Benzo(b)fluoranthene	ND	160	68	65	4.5	54	64	16.9	30 - 130	30	
Benzo(ghi)perylene	ND	230	61	62	1.6	52	58	10.9	30 - 130	30	
Benzo(k)fluoranthene	ND	230	63	65	3.1	56	60	6.9	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	34	37	8.5	30 - 130	30	l
Benzyl butyl phthalate	ND	230	67	64	4.6	55	62	12.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bis(2-chloroethoxy)methane	ND	230	66	69	4.4	56	67	17.9	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	54	58	7.1	49	74	40.7	30 - 130	30	r
Bis(2-chloroisopropyl)ether	ND	230	52	55	5.6	46	55	17.8	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	68	63	7.6	56	64	13.3	30 - 130	30	
Carbazole	ND	230	70	72	2.8	60	66	9.5	30 - 130	30	
Chrysene	ND	230	66	66	0.0	57	64	11.6	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	66	65	1.5	57	64	11.6	30 - 130	30	
Dibenzofuran	ND	230	65	68	4.5	57	64	11.6	30 - 130	30	
Diethyl phthalate	ND	230	66	65	1.5	51	60	16.2	30 - 130	30	
Dimethylphthalate	ND	230	65	66	1.5	52	59	12.6	30 - 130	30	
Di-n-butylphthalate	ND	670	70	69	1.4	57	64	11.6	30 - 130	30	
Di-n-octylphthalate	ND	230	69	64	7.5	57	65	13.1	30 - 130	30	
Fluoranthene	ND	230	64	67	4.6	57	63	10.0	30 - 130	30	
Fluorene	ND	230	68	69	1.5	57	65	13.1	30 - 130	30	
Hexachlorobenzene	ND	130	68	69	1.5	60	65	8.0	30 - 130	30	
Hexachlorobutadiene	ND	230	52	60	14.3	52	51	1.9	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	62	63	1.6	35	13	91.7	30 - 130	30	m,r
Hexachloroethane	ND	130	52	58	10.9	45	48	6.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	63	63	0.0	52	60	14.3	30 - 130	30	
Isophorone	ND	130	63	66	4.7	51	62	19.5	30 - 130	30	
Naphthalene	ND	230	60	66	9.5	57	62	8.4	30 - 130	30	
Nitrobenzene	ND	130	68	69	1.5	55	70	24.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	57	65	13.1	52	66	23.7	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	73	72	1.4	56	73	26.4	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	68	68	0.0	56	63	11.8	30 - 130	30	
Pentachloronitrobenzene	ND	230	68	70	2.9	59	67	12.7	30 - 130	30	
Pentachlorophenol	ND	230	51	47	8.2	92	102	10.3	30 - 130	30	
Phenanthrene	ND	130	66	68	3.0	58	64	9.8	30 - 130	30	
Phenol	ND	230	72	72	0.0	51	70	31.4	30 - 130	30	r
Pyrene	ND	230	66	70	5.9	58	65	11.4	30 - 130	30	
Pyridine	ND	230	40	50	22.2	44	54	20.4	30 - 130	30	
% 2,4,6-Tribromophenol	79	%	74	71	4.1	67	74	9.9	30 - 130	30	
% 2-Fluorobiphenyl	70	%	65	67	3.0	62	66	6.3	30 - 130	30	
% 2-Fluorophenol	60	%	58	61	5.0	48	64	28.6	30 - 130	30	
% Nitrobenzene-d5	66	%	66	66	0.0	54	69	24.4	30 - 130	30	
% Phenol-d5	70	%	70	69	1.4	51	68	28.6	30 - 130	30	
% Terphenyl-d14	72	%	65	63	3.1	57	63	10.0	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 407627 (mg/Kg), QC Sample No: BZ29434 (BZ28622, BZ28623, BZ28624)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	104	68	41.9	61	107	54.8	60 - 120	30	r
% n-Pentacosane	69	%	76	55	32.1	52	80	42.4	50 - 150	30	r

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 408106 (ug/kg), QC Sample No: BZ29739 (BZ28622 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	94	96	2.1	91	92	1.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	94	96	2.1	92	94	2.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	96	101	5.1	96	93	3.2	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,2-Trichloroethane	ND	5.0	96	98	2.1	94	94	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	94	95	1.1	91	93	2.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	90	92	2.2	81	86	6.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	99	99	0.0	98	101	3.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	109	110	0.9	108	108	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	91	95	4.3	89	88	1.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	109	110	0.9	106	106	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	89	98	9.6	89	85	4.6	70 - 130	30	
1,2-Dibromoethane	ND	5.0	91	95	4.3	93	90	3.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	97	98	1.0	96	98	2.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	95	97	2.1	93	92	1.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	94	95	1.1	92	94	2.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	96	96	0.0	96	98	2.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	98	100	2.0	97	99	2.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	93	95	2.1	91	91	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	99	98	1.0	96	98	2.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	93	93	0.0	86	88	2.3	70 - 130	30	
2-Chlorotoluene	ND	5.0	96	96	0.0	95	97	2.1	70 - 130	30	
2-Hexanone	ND	25	84	91	8.0	81	77	5.1	70 - 130	30	
2-Isopropyltoluene	ND	5.0	101	102	1.0	102	104	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	97	97	0.0	96	98	2.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	90	98	8.5	87	84	3.5	70 - 130	30	
Acetone	ND	10	71	76	6.8	74	83	11.5	70 - 130	30	
Acrylonitrile	ND	5.0	91	99	8.4	90	86	4.5	70 - 130	30	
Benzene	ND	1.0	95	96	1.0	94	97	3.1	70 - 130	30	
Bromobenzene	ND	5.0	96	98	2.1	96	98	2.1	70 - 130	30	
Bromochloromethane	ND	5.0	97	101	4.0	97	97	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	93	94	1.1	89	90	1.1	70 - 130	30	
Bromoform	ND	5.0	88	92	4.4	83	82	1.2	70 - 130	30	
Bromomethane	ND	5.0	76	75	1.3	55	57	3.6	70 - 130	30	m
Carbon Disulfide	ND	5.0	99	101	2.0	87	93	6.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	94	95	1.1	88	89	1.1	70 - 130	30	
Chlorobenzene	ND	5.0	97	97	0.0	96	98	2.1	70 - 130	30	
Chloroethane	ND	5.0	78	77	1.3	23	23	0.0	70 - 130	30	m
Chloroform	ND	5.0	93	94	1.1	91	93	2.2	70 - 130	30	
Chloromethane	ND	5.0	85	86	1.2	79	81	2.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	96	1.0	93	97	4.2	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	91	93	2.2	89	89	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	95	97	2.1	89	90	1.1	70 - 130	30	
Dibromomethane	ND	5.0	94	96	2.1	91	91	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	92	94	2.2	89	91	2.2	70 - 130	30	
Ethylbenzene	ND	1.0	98	97	1.0	97	99	2.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	108	108	0.0	109	111	1.8	70 - 130	30	
Isopropylbenzene	ND	1.0	97	97	0.0	97	100	3.0	70 - 130	30	
m&p-Xylene	ND	2.0	98	98	0.0	97	100	3.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	88	97	9.7	86	81	6.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	93	98	5.2	95	96	1.0	70 - 130	30	
Methylene chloride	ND	5.0	78	79	1.3	77	80	3.8	70 - 130	30	
n-Butylbenzene	ND	1.0	102	103	1.0	100	102	2.0	70 - 130	30	
n-Propylbenzene	ND	1.0	99	99	0.0	98	101	3.0	70 - 130	30	
o-Xylene	ND	2.0	98	99	1.0	98	100	2.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	100	1.0	99	101	2.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	100	102	2.0	101	104	2.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ28622

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Styrene	ND	5.0	98	98	0.0	97	99	2.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	97	97	0.0	97	99	2.0	70 - 130	30	
Tetrachloroethene	ND	5.0	102	103	1.0	103	106	2.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	92	100	8.3	89	86	3.4	70 - 130	30	
Toluene	ND	1.0	98	98	0.0	97	100	3.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	87	87	0.0	87	91	4.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	90	92	2.2	84	84	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	91	96	5.3	82	79	3.7	70 - 130	30	
Trichloroethene	ND	5.0	99	100	1.0	98	101	3.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	86	86	0.0	21	23	9.1	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	99	101	2.0	92	96	4.3	70 - 130	30	
Vinyl chloride	ND	5.0	81	82	1.2	88	92	4.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	103	%	100	101	1.0	100	98	2.0	70 - 130	30	
% Bromofluorobenzene	96	%	98	99	1.0	97	98	1.0	70 - 130	30	
% Dibromofluoromethane	104	%	100	101	1.0	99	100	1.0	70 - 130	30	
% Toluene-d8	100	%	100	100	0.0	99	99	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 408227 (ug/kg), QC Sample No: BZ30865 (BZ28622 (500X))

Volatiles - Soil

1,2,4-Trimethylbenzene	ND	1.0	99	98	1.0	68	67	1.5	70 - 130	30	m
Naphthalene	ND	5.0	102	101	1.0	32	28	13.3	70 - 130	30	m

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 07, 2017

Tuesday, November 07, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ28622 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ28622	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	99	90	90	ug/Kg
BZ28622	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	49	7	7	ug/Kg
BZ28622	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	99	40	40	ug/Kg
BZ28622	$8260MAR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	91000	4900	56000	56000	ug/Kg
BZ28622	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	ND	490	200	200	ug/Kg
BZ28622	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1400	200	200	ug/Kg
BZ28622	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1900	900	900	ug/Kg
BZ28622	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2000	200	200	ug/Kg
BZ28622	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	4600	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
BZ28622	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2000	770	770	ug/Kg
BZ28622	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1600	200	200	ug/Kg
BZ28622	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2300	1400	1400	ug/Kg
BZ28622	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	10000	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5000	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9600	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Bis(2-chloroethyl)ether	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1300	1000	1000	ug/Kg
BZ28622	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg
BZ28622	$8270-SMR	4,6-Dinitro-2-methylphenol	CT / RSR GB (mg/kg) / APS Organics	ND	2400	2000	2000	ug/Kg
BZ28622	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3400	2000	2000	ug/Kg
BZ28622	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ28622	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	2300	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1000	1000	ug/Kg
BZ28622	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	3400	2000	2000	ug/Kg
BZ28622	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1200	1200	ug/Kg
BZ28622	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	4600	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Pyridine	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ28622	$8270-SMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ28622	$8270-SMR	Pentachloronitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1400	1400	ug/Kg
BZ28622	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1900	1400	1400	ug/Kg
BZ28622	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ28622	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	12000	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ28622	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1900	1000	1000	ug/Kg
BZ28622	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1000	1000	ug/Kg
BZ28622	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ28622	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	93000	3400	5600	5600	ug/Kg
BZ28622	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	2000	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	5200	3400	1000	1000	ug/Kg

Tuesday, November 07, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ28622 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ28622	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	10000	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	5000	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	5600	3400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg
BZ28622	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	1500	1000	1000	ug/Kg
BZ28622	$8270-SMR	Naphthalene	CT / RSR GB (mg/kg) / Semivolatiles	84000	3400	56000	56000	ug/Kg
BZ28622	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1800	1000	1000	ug/Kg
BZ28622	$8270-SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	58000	3400	40000	40000	ug/Kg
BZ28622	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	9600	3400	1000	1000	ug/Kg
BZ28622	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4100	360	500	500	mg/Kg
BZ28622	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4100	360	2500	2500	mg/Kg
BZ28622	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	13.8	0.94	10	10	mg/Kg
BZ28622	PB-SM	Lead	CT / RSR DEC RES (mg/kg) / Inorganics	5180	47	400	400	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

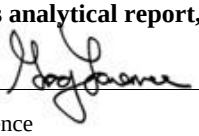
Laboratory Sample ID(s): BZ28622-BZ28624 ***Sampling Date(s):*** 10/27/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: ETPH Narration, ICP Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, November 07, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

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RCP Certification Report

November 07, 2017

SDG I.D.: GBZ28622

SDG Comments

Sample ID: BZ28622
Due to the concentration of target and/or non-target compounds, not all of the requested criteria could be achieved.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 10/31/17-1 Eric Geyer, Chemist 10/31/17

BZ28622, BZ28623, BZ28624

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 407617 (BZ29264)

BZ28622, BZ28623, BZ28624

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 407627 (Samples: BZ28622, BZ28623, BZ28624): -----

The LCS/LCSD RPD exceeds the method criteria, therefore there may be variability in the reported result.

The MS/MSD RPD exceeds the method criteria, therefore there may be variability in the reported result.

Instrument:

AU-FID1 11/01/17-1 Jeff Bucko, Chemist 11/01/17

BZ28622, BZ28623

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 10/31/17-1 Jeff Bucko, Chemist 10/31/17

BZ28624

The initial calibration (ETPHO23I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

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November 07, 2017

SDG I.D.: GBZ28622

ETPH Narration

QC (Batch Specific):

Batch 407627 (BZ29434)

BZ28622, BZ28623, BZ28624

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: % n-Pentacosane(32.1%), Ext. Petroleum H.C. (C9-C36)(41.9%)
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 10/30/17 08:53 Rick Schweitzer, Chemist 10/30/17

BZ28622, BZ28623, BZ28624

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 10/31/17 08:10 Rick Schweitzer, Chemist 10/31/17

BZ28622

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 11/03/17 08:21 Rick Schweitzer, Chemist 11/03/17

BZ28624

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.

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Certification Report

November 07, 2017

SDG I.D.: GBZ28622

Mercury Narration

QC (Batch Specific):

Batch 407516 (BZ28524)

BZ28622

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 407530 (BZ28470)

BZ28622, BZ28623, BZ28624

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 408216 (BZ31274)

BZ28624

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 407394 (Samples: BZ28622, BZ28623, BZ28624): -----

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (Soil- Lead(BZ28622, BZ28623, BZ28624))

Instrument:

ARCOS 10/28/17 07:09 Mike Arsenault, Chemist 10/28/17

BZ28622, BZ28623, BZ28624

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 10/30/17 08:35 Mike Arsenault, Chemist 10/30/17

BZ28622

PHOENIX

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Certification Report

November 07, 2017

SDG I.D.: GBZ28622

ICP Metals Narration

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 10/30/17 11:48 Mike Arsenault, Chemist 10/30/17

BZ28622, BZ28623, BZ28624

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

BLUE 10/30/17 08:56 Emily Kolominskaya, Chemist 10/30/17

BZ28622, BZ28624

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 407394 (BZ28481)

BZ28622, BZ28623, BZ28624

All LCS recoveries were within 75 - 125 with the following exceptions: None.

QC (Site Specific):

Batch 407518 (BZ28624)

BZ28622, BZ28624

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

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RCP Certification Report

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SDG I.D.: GBZ28622

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 407403 (Samples: BZ28622, BZ28623, BZ28624): -----

The LCS/LCSD recovery is below the method criteria. The site specific MS/MSD recovery is acceptable. No significant bias is suspected. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Benzoic Acid)

The LCS/LCSD recovery is acceptable. The MSD recovery is below the lower range but within the method criteria. A slight low bias is possible. (Benzidine, Hexachlorocyclopentadiene)

The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Bis(2-chloroethyl)ether, Hexachlorocyclopentadiene, Phenol)

Instrument:

CHEM19 10/27/17-1 Damien Drobinski, Chemist 10/27/17

BZ28622, BZ28623, BZ28624

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_1023):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 57% (20%), 4,6-Dinitro-2-methylphenol 22% (20%), Hexachlorocyclopentadiene 21% (20%), Pentachlorophenol 39% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1), Hexachlorobenzene 0.070 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1027_05-SPLIT_1023):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
97% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2,4-Dinitrophenol 41%H (30%), Pentachlorophenol 45%H (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 41%H (40%), Pentachlorophenol 45%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.068 (0.1), Hexachlorobenzene 0.073 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Site Specific):

Batch 407403 (BZ28624)

BZ28622, BZ28623, BZ28624

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 30 - 130 with the following exceptions: None.
All MSD recoveries were within 30 - 130 with the following exceptions: Benzidine(29%), Hexachlorocyclopentadiene(13%)
All MS/MSD RPDs were less than 30% with the following exceptions: Bis(2-chloroethyl)ether(40.7%), Hexachlorocyclopentadiene(91.7%), Phenol(31.4%)

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SDG I.D.: GBZ28622

SVOA Narration

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 407575 (Samples: BZ28624): -----

The LCS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (2,2-Dichloropropane)

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the lower range but within the method criteria. A slight low bias is possible. (1,2,4-Trichlorobenzene, 2-Hexanone, Acetone, Methyl ethyl ketone)

The MS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Methylene chloride)

QC Batch 407920 (Samples: BZ28623): -----

The LCS recovery is below the lower range but within the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Acetone)

Instrument:

CHEM03 10/29/17-1 Jane Li, Chemist 10/29/17

BZ28624

Initial Calibration Verification (CHEM03/VT-L1025):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/1029L02-VT-L1025):
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.

CHEM03 10/31/17-1 Jane Li, Chemist 10/31/17

BZ28623

Initial Calibration Verification (CHEM03/VT-L1030):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 21% (20%)
The following compounds did not meet recommended response factors: None.

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RCP Certification Report

November 07, 2017

SDG I.D.: GBZ28622

VOA Narration

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/1031L02-VT-L1030):
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.

CHEM26 11/01/17-1 Jane Li, Chemist 11/01/17

BZ28622

Initial Calibration Verification (CHEM26/VT-1030):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1101_02-VT-1030):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM26 11/02/17-2 Jane Li, Chemist 11/02/17

BZ28622

Initial Calibration Verification (CHEM26/VT-1102):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1102_19-VT-1102):
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 407920 (BZ28579)

BZ28623

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(69%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 07, 2017

SDG I.D.: GBZ28622

VOA Narration

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 408106 (BZ29739)

BZ28622

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 408227 (BZ30865)

BZ28622

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QC (Site Specific):

Batch 407575 (BZ28624)

BZ28624

All LCS recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(134%)
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: 1,2,4-Trichlorobenzene(69%), 2-Hexanone(64%), Acetone(60%), Methyl ethyl ketone(66%), Methylene chloride(132%)
All MSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(68%), Acetone(54%)
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 1.4°C Pg 1 of 1

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LHilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St, Suite 1100
Middletown CT

Project: Rockville MGP
Report to: Lynn Hilley
Invoice to: Tighe + Bond

Project P.O: 14-0755044

This section MUST be completed with Bottle Quantities.

Client Sample - Information / Identification

Sampler's Signature: [signature] Date: 10/27/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	CT ETPH	RSR metals	SPLP RSR metals	Total Cyanide	Soil VOA Vials ☒ methanol [ ] H2O	GL Soil container (2) 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
28622	SB-11 (5-7)	S	10/27/17	9:15	X	X	X	X	X	X		3	1							
28623	SB-04 (14-20')	S	10/27/17	11:00	X	X	X	X		X		3	1							
28624	MW-16S (4-10)	S	10/27/17	12:50	X	X	X	X	X	X		3	1							

Relinquished by: [signature] **Accepted by:** [signature] **Date:** 10/27/17 **Time:** 1513

Comments, Special Requirements or Regulations:
Include TB25173A
NJ AS Pricing

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 custom

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 645 of 1005

PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 07, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ30804 - BZ30805

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 07, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/01/17	9:00
Location Code:	TIGHE-DAS	Received by:	SW	11/01/17	17:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ30804
Phoenix ID: BZ30804

Project ID: ROCKVILLE MGP
Client ID: SB-07 (5-7)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Arsenic	8.41	0.70	mg/Kg	1	11/02/17	MA	SW6010C
Barium	69.1	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Beryllium	0.38	0.28	mg/Kg	1	11/02/17	MA	SW6010C
Cadmium	0.37	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Chromium	18.5	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Copper	44.9	0.35	mg/kg	1	11/02/17	MA	SW6010C
Mercury	0.36	0.03	mg/Kg	1	11/03/17	RS	SW7471B
Nickel	12.3	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Lead	86.8	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	11/02/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/02/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	11/02/17	MA	SW6010C
Vanadium	31.1	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Zinc	100	0.35	mg/Kg	1	11/02/17	MA	SW6010C
Percent Solid	89		%		11/01/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.10	0.51	mg/Kg	1	11/02/17	O/GD	SW9012B
Soil Extraction for SVOA	Completed				11/02/17	AA/CKV	SW3545A
Extraction of CT ETPH	Completed				11/02/17	AA/VCK	SW3545A
Mercury Digestion	Completed				11/03/17	W/W	SW7471B
Total Metals Digest	Completed				11/01/17	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	470	280	mg/Kg	5	11/04/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/04/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	5	11/04/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-07 (5-7)

Phoenix I.D.: BZ30804

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	1	11/02/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
2-Chlorotoluene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	11/02/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
4-Chlorotoluene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	11/02/17	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	11/02/17	JLI	SW8260C
Acrylonitrile	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Benzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Bromobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Bromochloromethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Bromodichloromethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Bromoform	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Bromomethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Carbon Disulfide	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Carbon tetrachloride	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Chlorobenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Chloroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Chloroform	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Chloromethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Dibromochloromethane	ND	3.5	ug/Kg	1	11/02/17	JLI	SW8260C
Dibromomethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Ethylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Isopropylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-07 (5-7)

Phoenix I.D.: BZ30804

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	35	ug/Kg	1	11/02/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	11/02/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	11/02/17	JLI	SW8260C
Naphthalene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
n-Butylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
n-Propylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
o-Xylene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
sec-Butylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Styrene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
tert-Butylbenzene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Tetrachloroethene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	11/02/17	JLI	SW8260C
Toluene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Total Xylenes	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	11/02/17	JLI	SW8260C
Trichloroethene	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
Vinyl chloride	ND	5.8	ug/Kg	1	11/02/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	11/02/17	JLI	70 - 130 %
% Bromofluorobenzene	80		%	1	11/02/17	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	11/02/17	JLI	70 - 130 %
% Toluene-d8	87		%	1	11/02/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	11/02/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-07 (5-7)

Phoenix I.D.: BZ30804

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	11/02/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Acenaphthylene	1200	260	ug/Kg	1	11/02/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
Anthracene	380	260	ug/Kg	1	11/02/17	DD	SW8270D
Benz(a)anthracene	1200	260	ug/Kg	1	11/02/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	11/02/17	DD	SW8270D
Benzo(a)pyrene	1800	260	ug/Kg	1	11/02/17	DD	SW8270D
Benzo(b)fluoranthene	1800	260	ug/Kg	1	11/02/17	DD	SW8270D
Benzo(ghi)perylene	2700	260	ug/Kg	1	11/02/17	DD	SW8270D
Benzo(k)fluoranthene	1700	260	ug/Kg	1	11/02/17	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	11/02/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
Chrysene	1600	260	ug/Kg	1	11/02/17	DD	SW8270D
Dibenz(a,h)anthracene	460	260	ug/Kg	1	11/02/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	1	11/02/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Fluoranthene	1000	260	ug/Kg	1	11/02/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1900	260	ug/Kg	1	11/02/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Naphthalene	420	260	ug/Kg	1	11/02/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	11/02/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	11/02/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
Pentachlorophenol	670	370	ug/Kg	1	11/02/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-07 (5-7)

Phoenix I.D.: BZ30804

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	610	260	ug/Kg	1	11/02/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	11/02/17	DD	SW8270D
Pyrene	1800	260	ug/Kg	1	11/02/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	11/02/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/02/17	DD	30 - 130 %
% 2-Fluorobiphenyl	63		%	1	11/02/17	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	11/02/17	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	11/02/17	DD	30 - 130 %
% Phenol-d5	61		%	1	11/02/17	DD	30 - 130 %
% Terphenyl-d14	59		%	1	11/02/17	DD	30 - 130 %
Field Extraction	Completed				11/01/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.
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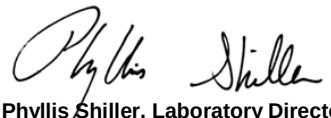

Phyllis Shiller, Laboratory Director
November 07, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 07, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/01/17	9:50
Location Code:	TIGHE-DAS	Received by:	SW	11/01/17	17:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ30804
Phoenix ID: BZ30805

Project ID: ROCKVILLE MGP
Client ID: SB-07 (10-11)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		11/01/17	Q	SW846-%Solid
Extraction of CT ETPH	Completed				11/02/17	AA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4700	600	mg/Kg	10	11/05/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	11/05/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	11/05/17	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 07, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 07, 2017

QA/QC Data

SDG I.D.: GBZ30804

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 407956 (mg/kg), QC Sample No: BZ30278 (BZ30804)														
ICP Metals - Soil														
Antimony	BRL	3.0	<3.4	<3.6	NC	113			93.5			75 - 125	30	
Arsenic	BRL	0.60	3.59	3.06	NC	113			90.9			75 - 125	30	
Barium	BRL	0.30	49.7	38.1	26.4	115			90.1			75 - 125	30	
Beryllium	BRL	0.24	<0.28	0.30	NC	114			99.1			75 - 125	30	
Cadmium	BRL	0.30	0.60	0.68	NC	108			92.3			75 - 125	30	
Chromium	BRL	0.30	12.0	10.1	17.2	113			102			75 - 125	30	
Copper	BRL	0.30	54.3	38.7	33.5	114			93.8			75 - 125	30	r
Lead	BRL	0.30	78.2	132	51.2	115			84.4			75 - 125	30	r
Nickel	BRL	0.30	17.3	21.6	22.1	111			103			75 - 125	30	
Selenium	BRL	1.2	<1.4	<1.4	NC	92.5			75.8			75 - 125	30	
Silver	BRL	0.30	<0.34	<0.36	NC	102			95.2			75 - 125	30	
Thallium	BRL	2.7	<3.1	<3.3	NC	109			98.8			75 - 125	30	
Vanadium	BRL	0.30	17.9	22.7	23.6	117			99.9			75 - 125	30	
Zinc	BRL	0.30	101	127	22.8	106			76.5			75 - 125	30	
QA/QC Batch 408214 (mg/kg), QC Sample No: BZ30442 (BZ30804)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	94.2	90.6	3.9	95.7			70 - 130	30	

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

r = This parameter is outside laboratory RPD specified recovery limits.

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QA/QC Report

November 07, 2017

QA/QC Data

SDG I.D.: GBZ30804

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 407975 (mg/Kg), QC Sample No: BZ30278 50X (BZ30804)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.54	<0.54	NC	102			103			80 - 120	30

Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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QA/QC Report

November 07, 2017

QA/QC Data

SDG I.D.: GBZ30804

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 408239 (ug/kg), QC Sample No: BZ30721 (BZ30804)										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	83	87	4.7	84	86	2.4	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	85	89	4.6	88	92	4.4	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	88	92	4.4	88	92	4.4	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	85	89	4.6	87	86	1.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	85	91	6.8	88	92	4.4	70 - 130	30
1,1-Dichloroethene	ND	5.0	88	93	5.5	85	91	6.8	70 - 130	30
1,1-Dichloropropene	ND	5.0	86	90	4.5	86	92	6.7	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	86	88	2.3	81	84	3.6	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	78	84	7.4	79	86	8.5	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	86	89	3.4	79	82	3.7	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	85	87	2.3	84	88	4.7	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	88	97	9.7	87	89	2.3	70 - 130	30
1,2-Dibromoethane	ND	5.0	84	87	3.5	84	85	1.2	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	86	90	4.5	85	90	5.7	70 - 130	30
1,2-Dichloroethane	ND	5.0	83	87	4.7	85	86	1.2	70 - 130	30
1,2-Dichloropropane	ND	5.0	86	89	3.4	88	91	3.4	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	86	89	3.4	85	91	6.8	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	84	87	3.5	81	86	6.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	80	84	4.9	82	84	2.4	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	86	89	3.4	83	88	5.8	70 - 130	30
2,2-Dichloropropane	ND	5.0	88	95	7.7	87	92	5.6	70 - 130	30
2-Chlorotoluene	ND	5.0	85	89	4.6	85	90	5.7	70 - 130	30
2-Hexanone	ND	25	80	87	8.4	80	82	2.5	70 - 130	30
2-Isopropyltoluene	ND	5.0	99	104	4.9	100	106	5.8	70 - 130	30
4-Chlorotoluene	ND	5.0	84	89	5.8	83	89	7.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	88	95	7.7	88	91	3.4	70 - 130	30
Acetone	ND	10	74	80	7.8	85	85	0.0	70 - 130	30
Acrylonitrile	ND	5.0	93	100	7.3	95	98	3.1	70 - 130	30
Benzene	ND	1.0	83	87	4.7	86	89	3.4	70 - 130	30
Bromobenzene	ND	5.0	87	91	4.5	88	92	4.4	70 - 130	30
Bromochloromethane	ND	5.0	84	88	4.7	86	88	2.3	70 - 130	30
Bromodichloromethane	ND	5.0	84	89	5.8	86	89	3.4	70 - 130	30
Bromoform	ND	5.0	79	85	7.3	76	79	3.9	70 - 130	30
Bromomethane	ND	5.0	97	103	6.0	96	96	0.0	70 - 130	30
Carbon Disulfide	ND	5.0	114	120	5.1	109	117	7.1	70 - 130	30
Carbon tetrachloride	ND	5.0	82	88	7.1	82	90	9.3	70 - 130	30
Chlorobenzene	ND	5.0	84	87	3.5	85	89	4.6	70 - 130	30
Chloroethane	ND	5.0	104	110	5.6	103	107	3.8	70 - 130	30
Chloroform	ND	5.0	83	87	4.7	85	88	3.5	70 - 130	30
Chloromethane	ND	5.0	91	98	7.4	84	88	4.7	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	84	89	5.8	87	90	3.4	70 - 130	30

QA/QC Data

SDG I.D.: GBZ30804

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	87	92	5.6	87	89	2.3	70 - 130	30	
Dibromochloromethane	ND	3.0	86	92	6.7	87	89	2.3	70 - 130	30	
Dibromomethane	ND	5.0	85	91	6.8	87	88	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	98	104	5.9	79	85	7.3	70 - 130	30	
Ethylbenzene	ND	1.0	84	87	3.5	84	90	6.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	91	95	4.3	87	97	10.9	70 - 130	30	
Isopropylbenzene	ND	1.0	86	90	4.5	88	94	6.6	70 - 130	30	
m&p-Xylene	ND	2.0	82	86	4.8	82	87	5.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	83	90	8.1	84	87	3.5	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	102	109	6.6	103	106	2.9	70 - 130	30	
Methylene chloride	ND	5.0	77	81	5.1	80	81	1.2	70 - 130	30	
Naphthalene	ND	5.0	90	93	3.3	87	89	2.3	70 - 130	30	
n-Butylbenzene	ND	1.0	92	95	3.2	88	95	7.7	70 - 130	30	
n-Propylbenzene	ND	1.0	87	92	5.6	87	93	6.7	70 - 130	30	
o-Xylene	ND	2.0	85	89	4.6	87	91	4.5	70 - 130	30	
p-Isopropyltoluene	ND	1.0	89	91	2.2	87	94	7.7	70 - 130	30	
sec-Butylbenzene	ND	1.0	90	94	4.3	91	96	5.3	70 - 130	30	
Styrene	ND	5.0	82	86	4.8	84	86	2.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	86	91	5.6	88	94	6.6	70 - 130	30	
Tetrachloroethene	ND	5.0	91	95	4.3	91	98	7.4	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	89	96	7.6	88	93	5.5	70 - 130	30	
Toluene	ND	1.0	88	92	4.4	89	94	5.5	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	87	92	5.6	85	91	6.8	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	83	88	5.8	81	83	2.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	99	108	8.7	95	95	0.0	70 - 130	30	
Trichloroethene	ND	5.0	87	90	3.4	86	92	6.7	70 - 130	30	
Trichlorofluoromethane	ND	5.0	94	100	6.2	91	98	7.4	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	107	5.8	94	106	12.0	70 - 130	30	
Vinyl chloride	ND	5.0	96	103	7.0	90	94	4.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	93	%	103	103	0.0	102	102	0.0	70 - 130	30	
% Bromofluorobenzene	99	%	99	99	0.0	98	97	1.0	70 - 130	30	
% Dibromofluoromethane	102	%	99	98	1.0	97	98	1.0	70 - 130	30	
% Toluene-d8	89	%	102	103	1.0	103	102	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 408107 (ug/kg), QC Sample No: BZ30912 (BZ30804)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	61		53	56	5.5	30 - 130	30		
1,2,4-Trichlorobenzene	ND	230	56		52	56	7.4	30 - 130	30		
1,2-Dichlorobenzene	ND	180	52		49	51	4.0	30 - 130	30		
1,2-Diphenylhydrazine	ND	230	69		61	63	3.2	30 - 130	30		
1,3-Dichlorobenzene	ND	230	50		46	49	6.3	30 - 130	30		
1,4-Dichlorobenzene	ND	230	52		48	52	8.0	30 - 130	30		
2,4,5-Trichlorophenol	ND	230	63		56	60	6.9	30 - 130	30		
2,4,6-Trichlorophenol	ND	130	60		55	59	7.0	30 - 130	30		
2,4-Dichlorophenol	ND	130	63		55	58	5.3	30 - 130	30		
2,4-Dimethylphenol	ND	230	66		58	63	8.3	30 - 130	30		
2,4-Dinitrophenol	ND	230	<10		21	20	4.9	30 - 130	30	l,m	
2,4-Dinitrotoluene	ND	130	65		55	57	3.6	30 - 130	30		
2,6-Dinitrotoluene	ND	130	63		55	57	3.6	30 - 130	30		
2-Chloronaphthalene	ND	230	62		55	61	10.3	30 - 130	30		
2-Chlorophenol	ND	230	58		48	53	9.9	30 - 130	30		

QA/QC Data

SDG I.D.: GBZ30804

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylnaphthalene	ND	230	58			53	56	5.5	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	64			54	60	10.5	30 - 130	30	
2-Nitroaniline	ND	330	92			75	81	7.7	30 - 130	30	
2-Nitrophenol	ND	230	57			53	57	7.3	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	64			50	55	9.5	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	73			60	65	8.0	30 - 130	30	
3-Nitroaniline	ND	330	81			64	70	9.0	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	<10			29	30	3.4	30 - 130	30	l,m
4-Bromophenyl phenyl ether	ND	230	65			55	60	8.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	70			62	66	6.3	30 - 130	30	
4-Chloroaniline	ND	230	77			63	64	1.6	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	61			52	54	3.8	30 - 130	30	
4-Nitroaniline	ND	230	69			60	61	1.7	30 - 130	30	
4-Nitrophenol	ND	230	64			58	59	1.7	30 - 130	30	
Acenaphthene	ND	230	68			61	64	4.8	30 - 130	30	
Acenaphthylene	ND	130	61			56	59	5.2	30 - 130	30	
Acetophenone	ND	230	59			50	53	5.8	30 - 130	30	
Aniline	ND	330	60			50	53	5.8	30 - 130	30	
Anthracene	ND	230	66			62	63	1.6	30 - 130	30	
Benz(a)anthracene	ND	230	64			71	58	20.2	30 - 130	30	
Benzidine	ND	330	40			20	23	14.0	30 - 130	30	m
Benzo(a)pyrene	ND	130	63			64	54	16.9	30 - 130	30	
Benzo(b)fluoranthene	ND	160	68			68	64	6.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	72			54	50	7.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	64			66	56	16.4	30 - 130	30	
Benzoic Acid	ND	330	<10			42	37	12.7	30 - 130	30	l
Benzyl butyl phthalate	ND	230	69			57	60	5.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	63			55	59	7.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	50			44	48	8.7	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	52			46	49	6.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	71			54	58	7.1	30 - 130	30	
Carbazole	ND	230	70			58	61	5.0	30 - 130	30	
Chrysene	ND	230	67			71	59	18.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	69			46	55	17.8	30 - 130	30	
Dibenzofuran	ND	230	65			55	59	7.0	30 - 130	30	
Diethyl phthalate	ND	230	65			54	57	5.4	30 - 130	30	
Dimethylphthalate	ND	230	64			119	60	65.9	30 - 130	30	r
Di-n-butylphthalate	ND	670	74			57	60	5.1	30 - 130	30	
Di-n-octylphthalate	ND	230	72			57	60	5.1	30 - 130	30	
Fluoranthene	ND	230	66			77	53	36.9	30 - 130	30	r
Fluorene	ND	230	67			58	61	5.0	30 - 130	30	
Hexachlorobenzene	ND	130	71			61	64	4.8	30 - 130	30	
Hexachlorobutadiene	ND	230	56			52	54	3.8	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	49			14	15	6.9	30 - 130	30	m
Hexachloroethane	ND	130	49			44	46	4.4	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	69			54	50	7.7	30 - 130	30	
Isophorone	ND	130	60			51	55	7.5	30 - 130	30	
Naphthalene	ND	230	59			55	61	10.3	30 - 130	30	
Nitrobenzene	ND	130	60			52	56	7.4	30 - 130	30	
N-Nitrosodimethylamine	ND	230	53			49	50	2.0	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	64			52	57	9.2	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	66			57	59	3.4	30 - 130	30	
Pentachloronitrobenzene	ND	230	69			57	62	8.4	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ30804

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Pentachlorophenol	ND	230	23			50	52	3.9	30 - 130	30	l
Phenanthrene	ND	130	66			60	59	1.7	30 - 130	30	
Phenol	ND	230	72			59	65	9.7	30 - 130	30	
Pyrene	ND	230	66			81	56	36.5	30 - 130	30	r
Pyridine	ND	230	40			37	38	2.7	30 - 130	30	
% 2,4,6-Tribromophenol	74	%	75			69	75	8.3	30 - 130	30	
% 2-Fluorobiphenyl	63	%	64			55	61	10.3	30 - 130	30	
% 2-Fluorophenol	57	%	59			49	53	7.8	30 - 130	30	
% Nitrobenzene-d5	60	%	60			51	55	7.5	30 - 130	30	
% Phenol-d5	61	%	65			51	57	11.1	30 - 130	30	
% Terphenyl-d14	64	%	66			51	54	5.7	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%)

QA/QC Batch 408115 (mg/Kg), QC Sample No: BZ30995 (BZ30804, BZ30805)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	110	107	2.8	102	108	5.7	60 - 120	30	
% n-Pentacosane	80	%	85	87	2.3	89	88	1.1	50 - 150	30	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 07, 2017

Tuesday, November 07, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ30804 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ30804	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1800	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1800	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1600	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2700	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1700	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1800	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1800	260	1000	1000	ug/Kg
BZ30804	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BZ30805	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4700	600	500	500	mg/Kg
BZ30805	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4700	600	2500	2500	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

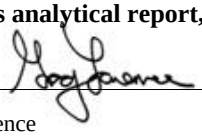
Laboratory Sample ID(s): BZ30804, BZ30805 ***Sampling Date(s):*** 11/1/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ICP Narration, SVOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, November 07, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 07, 2017

SDG I.D.: GBZ30804

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/02/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/02/17

BZ30804

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 407975 (BZ30278)

BZ30804

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-FID11 11/03/17-1 Jeff Bucko, Chemist 11/03/17

BZ30804

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 11/05/17-1 Jeff Bucko, Chemist 11/05/17

BZ30805

The initial calibration (ETPHO01I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 408115 (BZ30995)

BZ30804, BZ30805

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.

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Certification Report

November 07, 2017

SDG I.D.: GBZ30804

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/03/17 08:21 Rick Schweitzer, Chemist 11/03/17

BZ30804

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 408214 (BZ30442)

BZ30804

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 407956 (Samples: BZ30804): -----

The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Copper, Lead)

Instrument:

ARCOS 11/01/17 14:13 Mike Arsenault, Chemist 11/01/17

BZ30804

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 407956 (BZ30278)

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Certification Report

November 07, 2017

SDG I.D.: GBZ30804

ICP Metals Narration

BZ30804

All LCS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 408107 (Samples: BZ30804): -----

The LCS recovery is below the method criteria. The Batch MS/MSD recovery is below the lower range but within the method criteria. A low bias is possible. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol)

The LCS recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. A low bias is possible. (Benzoic Acid)

The LCS recovery is below the lower range but within the method criteria. The Batch MS/MSD recovery is acceptable. No significant bias is suspected. (Pentachlorophenol)

Instrument:

CHEM27 11/02/17-1 Damien Drobinski, Chemist 11/02/17

BZ30804

Initial Calibration Verification (CHEM27/SPLIT_1020):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2-Nitrophenol 27% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1), Bis(2-chloroethoxy)methane 0.286 (0.3), Hexachlorobenzene 0.091 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/1102_04-SPLIT_1020):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.087 (0.1), Bis(2-chloroethoxy)methane 0.257 (0.3), Hexachlorobenzene 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 408107 (BZ30912)

BZ30804

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(<10%), Benzoic Acid(<10%), Pentachlorophenol(23%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 07, 2017

SDG I.D.: GBZ30804

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM18 11/02/17-1 Jane Li, Chemist 11/02/17

BZ30804

Initial Calibration Verification (CHEM18/VT-M1030):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Chloroethane 24% (20%)
The following compounds did not meet recommended response factors: Acetone 0.095 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM18/1102M02-VT-M1030):
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 408239 (BZ30721)

BZ30804

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.1C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐

CHAIN OF CUSTODY RECORD

Temp 1.1 °C Pg 1 of 1

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:
☐ Fax #:
☒ Email: kwilkey@tyke-bond.com

Customer: Tyke + Bond
Address: 213 Court Street
Suite 1100
Middletown, CT

Project: Rockville MGP
Report to: Lynn Wilkey
Invoice to: Tyke + Bond
Phone #:
Fax #:

Project P.O: 14-0788-044

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 11/1/17

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	SVOC	CT ETPH	VOC methods	Rush Charge	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (8) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [1250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
30804	SB-07 (5-7)	S	11/1/17	0940	X	X	X	X	X								3	1	
30805	SB-07 (10-11)	S	11/1/17	0950			X											1	

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TFROMM	11/1/17	1107

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TI0125173A

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 Reclass

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other
*SURCHARGE APPLIES

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 665 of 1005

PHOENIX
Environmental Laboratories, Inc.

Wednesday, November 29, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ39898 - BZ39904

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:00
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39898

Project ID: ROCKVILLE MGP
Client ID: SS-100

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	14.9	0.71	mg/Kg	1	11/15/17	MA	SW6010C
Barium	64.2	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.46	0.28	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	1.01	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	17.3	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Copper	76.0	0.35	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.25	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	13.1	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Lead	61.4	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/15/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	11/15/17	MA	SW6010C
Vanadium	41.3	0.35	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	118	0.38	mg/Kg	1	11/15/17	MA	SW6010C
Percent Solid	87		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.52	0.52	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	59	56	mg/Kg	1	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	11/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	1	11/14/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-100

Phoenix I.D.: BZ39898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	106		%	10	11/13/17	AW	30 - 150 %
% TCMX	90		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
2-Hexanone	ND	26	ug/Kg	1	11/13/17	HM	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	11/13/17	HM	SW8260C
Acetone	ND	260	ug/Kg	1	11/13/17	HM	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Benzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Bromoform	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-100

Phoenix I.D.: BZ39898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Chloroform	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	11/13/17	HM	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	11/13/17	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	11/13/17	HM	SW8260C
Methylene chloride	ND	10	ug/Kg	1	11/13/17	HM	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Styrene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	11/13/17	HM	SW8260C
Toluene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	11/13/17	HM	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorotrifluoroethane	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	11/13/17	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	110		%	1	11/13/17	HM	70 - 130 %
% Bromofluorobenzene	84		%	1	11/13/17	HM	70 - 130 %
% Dibromofluoromethane	110		%	1	11/13/17	HM	70 - 130 %
% Toluene-d8	100		%	1	11/13/17	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-100

Phoenix I.D.: BZ39898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthylene	630	260	ug/Kg	1	11/11/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Anthracene	270	260	ug/Kg	1	11/11/17	DD	SW8270D
Benz(a)anthracene	1100	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(a)pyrene	1300	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	1200	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(ghi)perylene	1200	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	1300	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Chrysene	1300	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Fluoranthene	1600	260	ug/Kg	1	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-100

Phoenix I.D.: BZ39898

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1200	260	ug/Kg	1	11/11/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Phenanthrene	710	260	ug/Kg	1	11/11/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyrene	1900	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	78		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	80		%	1	11/11/17	DD	30 - 130 %
% Phenol-d5	72		%	1	11/11/17	DD	30 - 130 %
% Terphenyl-d14	80		%	1	11/11/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-100

Phoenix I.D.: BZ39898

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.
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Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:00
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39899

Project ID: ROCKVILLE MGP
Client ID: SS-101

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	12.5	0.78	mg/Kg	1	11/15/17	MA	SW6010C
Barium	47.5	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.42	0.31	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	1.21	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	15.1	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Copper	92.1	0.39	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.08	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	11.0	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Lead	99.0	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/15/17	MA	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	11/15/17	MA	SW6010C
Vanadium	44.1	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	156	3.9	mg/Kg	10	11/16/17	MA	SW6010C
Percent Solid	89		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.72	0.56	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	74	55	mg/Kg	1	11/15/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	11/15/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	100		%	1	11/15/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-101

Phoenix I.D.: BZ39899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	10	11/13/17	AW	30 - 150 %
% TCMX	78		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,1,1-Trichloroethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2-Trichloroethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloropropene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichlorobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichloropropane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trichlorobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trimethylbenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichlorobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichloroethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichloropropane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,3,5-Trimethylbenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichlorobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichloropropane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
1,4-Dichlorobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
2,2-Dichloropropane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
2-Chlorotoluene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
2-Hexanone	ND	44	ug/Kg	1	11/13/17	HM	SW8260C
2-Isopropyltoluene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
4-Chlorotoluene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
4-Methyl-2-pentanone	ND	44	ug/Kg	1	11/13/17	HM	SW8260C
Acetone	ND	440	ug/Kg	1	11/13/17	HM	SW8260C
Acrylonitrile	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Benzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Bromobenzene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Bromochloromethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Bromodichloromethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Bromoform	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Bromomethane	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-101

Phoenix I.D.: BZ39899

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Carbon tetrachloride	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Chlorobenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Chloroethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Chloroform	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Chloromethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,2-Dichloroethene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,3-Dichloropropene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Dibromochloromethane	ND		5.3	ug/Kg	1	11/13/17	HM	SW8260C
Dibromomethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Dichlorodifluoromethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Ethylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Hexachlorobutadiene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Isopropylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
m&p-Xylene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Methyl Ethyl Ketone	ND		53	ug/Kg	1	11/13/17	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND		18	ug/Kg	1	11/13/17	HM	SW8260C
Methylene chloride	19	S	18	ug/Kg	1	11/13/17	HM	SW8260C
Naphthalene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
n-Butylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
n-Propylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
o-Xylene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
p-Isopropyltoluene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
sec-Butylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Styrene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
tert-Butylbenzene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Tetrachloroethene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Tetrahydrofuran (THF)	ND		18	ug/Kg	1	11/13/17	HM	SW8260C
Toluene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Total Xylenes	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,2-Dichloroethene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,3-Dichloropropene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,4-dichloro-2-butene	ND		18	ug/Kg	1	11/13/17	HM	SW8260C
Trichloroethene	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorofluoromethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorotrifluoroethane	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
Vinyl chloride	ND		8.8	ug/Kg	1	11/13/17	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	104			%	1	11/13/17	HM	70 - 130 %
% Bromofluorobenzene	93			%	1	11/13/17	HM	70 - 130 %
% Dibromofluoromethane	106			%	1	11/13/17	HM	70 - 130 %
% Toluene-d8	101			%	1	11/13/17	HM	70 - 130 %
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND		260	ug/Kg	1	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND		260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND		260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND		370	ug/Kg	1	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND		260	ug/Kg	1	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND		260	ug/Kg	1	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-101

Phoenix I.D.: BZ39899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthylene	620	260	ug/Kg	1	11/11/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Benz(a)anthracene	730	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(a)pyrene	1000	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	860	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(ghi)perylene	900	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	960	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Chrysene	970	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Fluoranthene	960	260	ug/Kg	1	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-101

Phoenix I.D.: BZ39899

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	870	260	ug/Kg	1	11/11/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Phenanthrene	400	260	ug/Kg	1	11/11/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyrene	1300	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	80		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	11/11/17	DD	30 - 130 %
% Phenol-d5	69		%	1	11/11/17	DD	30 - 130 %
% Terphenyl-d14	76		%	1	11/11/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-101

Phoenix I.D.: BZ39899

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.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.
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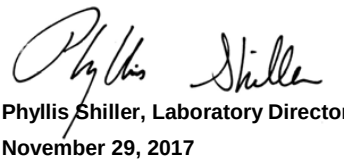

Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:30
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39900

Project ID: ROCKVILLE MGP
Client ID: SS-102

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	4.28	0.64	mg/Kg	1	11/15/17	MA	SW6010C
Barium	68.0	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.28	0.26	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	1.03	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	10.2	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Copper	34.9	0.32	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.07	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	12.3	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Lead	568	3.2	mg/Kg	10	11/16/17	MA	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	11/15/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	11/27/17	MA	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	11/27/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/27/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Lead	0.277	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Antimony	0.008	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	11/27/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	11/15/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-102

Phoenix I.D.: BZ39900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				11/27/17	Q/W	SW3005A
Vanadium	51.9	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	111	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Percent Solid	94		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				11/27/17	Q/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/22/17	Q	SW1312
SPLP Extraction for Organics	Completed				11/22/17	Q	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/27/17	JJ/I	SW3510C/SW3520C
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	3700	260	mg/Kg	5	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	11/14/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	11/14/17	AW	SW8082A
PCB-1268	380	350	ug/Kg	10	11/14/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	10	11/14/17	AW	30 - 150 %
% TCMX	59		%	10	11/14/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	11/13/17	HM	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-102

Phoenix I.D.: BZ39900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
2-Hexanone	ND	22	ug/Kg	1	11/13/17	HM	SW8260C
2-Isopropyltoluene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	11/13/17	HM	SW8260C
Acetone	ND	220	ug/Kg	1	11/13/17	HM	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Benzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Bromodichloromethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Bromoform	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Chloroform	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	11/13/17	HM	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Ethylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Isopropylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
m&p-Xylene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	11/13/17	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Methylene chloride	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Naphthalene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
n-Butylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
n-Propylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
o-Xylene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
p-Isopropyltoluene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
sec-Butylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Styrene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Tetrachloroethene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Tetrahydrofuran (THF)	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Toluene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-102

Phoenix I.D.: BZ39900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	8.8	ug/Kg	1	11/13/17	HM	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	11/13/17	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	106		%	1	11/13/17	HM	70 - 130 %
% Bromofluorobenzene	92		%	1	11/13/17	HM	70 - 130 %
% Dibromofluoromethane	109		%	1	11/13/17	HM	70 - 130 %
% Toluene-d8	100		%	1	11/13/17	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2-Chlorophenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitroaniline	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitrophenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3500	ug/Kg	10	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D
3-Nitroaniline	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	3500	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloroaniline	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitrophenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthylene	9600	2400	ug/Kg	10	11/11/17	DD	SW8270D
Acetophenone	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Aniline	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Anthracene	7200	2400	ug/Kg	10	11/11/17	DD	SW8270D
Benz(a)anthracene	40000	2400	ug/Kg	10	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-102

Phoenix I.D.: BZ39900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzidine	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(a)pyrene	45000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	35000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(ghi)perylene	24000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	37000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Benzoic acid	ND	7000	ug/Kg	10	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Carbazole	ND	3500	ug/Kg	10	11/11/17	DD	SW8270D
Chrysene	44000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	3900	2400	ug/Kg	10	11/11/17	DD	SW8270D
Dibenzofuran	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Diethyl phthalate	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Dimethylphthalate	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	7000	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Fluoranthene	60000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Fluorene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Hexachloroethane	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	25000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Isophorone	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Naphthalene	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Nitrobenzene	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	980	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachlorophenol	ND	1300	ug/Kg	10	11/11/17	DD	SW8270D
Phenanthrene	18000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Phenol	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Pyrene	74000	2400	ug/Kg	10	11/11/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/11/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Acenaphthene	0.28	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Acenaphthylene	0.73	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-102

Phoenix I.D.: BZ39900

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	0.38	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benz(a)anthracene	1.5	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(a)pyrene	1.5	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	1.4	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	0.91	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	1.2	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Chrysene	1.6	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.33	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Fluoranthene	5.5	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.81	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Phenanthrene	0.19	0.05	ug/L	1	11/28/17	DD	SW8270D (SIM)
Pyrene	4.4	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	63		%	1	11/28/17	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	11/28/17	DD	30 - 130 %
% Terphenyl-d14	89		%	1	11/28/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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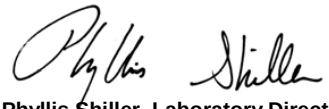

Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:15
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39901

Project ID: ROCKVILLE MGP
Client ID: SS-103

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	17.5	0.78	mg/Kg	1	11/15/17	MA	SW6010C
Barium	48.9	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.44	0.31	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	1.62	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	15.3	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Copper	67.6	0.39	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.21	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	12.7	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Lead	154	3.9	mg/Kg	10	11/16/17	MA	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/15/17	MA	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	11/15/17	MA	SW6010C
Vanadium	37.9	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	124	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Percent Solid	89		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	4.03	0.56	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	3100	280	mg/Kg	5	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	11/14/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-103

Phoenix I.D.: BZ39901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	111		%	10	11/13/17	AW	30 - 150 %
% TCMX	80		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.1	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichloropropane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
2,2-Dichloropropane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
2-Chlorotoluene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
2-Hexanone	ND	42	ug/Kg	1	11/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
4-Chlorotoluene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	42	ug/Kg	1	11/13/17	JLI	SW8260C
Acetone	ND	420	ug/Kg	1	11/13/17	JLI	SW8260C
Acrylonitrile	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Benzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromochloromethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromodichloromethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromoform	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromomethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-103

Phoenix I.D.: BZ39901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon tetrachloride	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chlorobenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroform	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloromethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromochloromethane	ND	5.1	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromomethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Ethylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Isopropylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
m&p-Xylene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	51	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	17	ug/Kg	1	11/13/17	JLI	SW8260C
Methylene chloride	ND	17	ug/Kg	1	11/13/17	JLI	SW8260C
Naphthalene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
n-Butylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
n-Propylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
o-Xylene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
sec-Butylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Styrene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
tert-Butylbenzene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrachloroethene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	17	ug/Kg	1	11/13/17	JLI	SW8260C
Toluene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Total Xylenes	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	17	ug/Kg	1	11/13/17	JLI	SW8260C
Trichloroethene	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
Vinyl chloride	ND	8.5	ug/Kg	1	11/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	106		%	1	11/13/17	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	11/13/17	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	11/13/17	JLI	70 - 130 %
% Toluene-d8	98		%	1	11/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-103

Phoenix I.D.: BZ39901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2-Chlorophenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitroaniline	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitrophenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3700	ug/Kg	10	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1700	ug/Kg	10	11/11/17	DD	SW8270D
3-Nitroaniline	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	3700	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloroaniline	ND	1700	ug/Kg	10	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitrophenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthylene	11000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Acetophenone	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Aniline	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Anthracene	3600	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benz(a)anthracene	11000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benzidine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(a)pyrene	18000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	12000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(ghi)perylene	17000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	12000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Benzoic acid	ND	7400	ug/Kg	10	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Carbazole	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Chrysene	12000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	4300	2600	ug/Kg	10	11/11/17	DD	SW8270D
Dibenzofuran	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
Diethyl phthalate	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Dimethylphthalate	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	7400	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Fluoranthene	11000	2600	ug/Kg	10	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-103

Phoenix I.D.: BZ39901

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Hexachloroethane	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	16000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Isophorone	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Naphthalene	3700	2600	ug/Kg	10	11/11/17	DD	SW8270D
Nitrobenzene	ND	1300	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachlorophenol	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Phenanthrene	3300	2600	ug/Kg	10	11/11/17	DD	SW8270D
Phenol	ND	2600	ug/Kg	10	11/11/17	DD	SW8270D
Pyrene	16000	2600	ug/Kg	10	11/11/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/11/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-103

Phoenix I.D.: BZ39901

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:
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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C10 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:50
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39902

Project ID: ROCKVILLE MGP
Client ID: SS-104

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	0.81	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	17.5	0.82	mg/Kg	1	11/15/17	MA	SW6010C
Barium	38.1	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.34	0.33	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	0.85	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	20.5	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Copper	167	4.1	mg/kg	10	11/16/17	MA	SW6010C
Mercury	0.27	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	10.0	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Lead	171	4.1	mg/Kg	10	11/16/17	MA	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/15/17	MA	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	11/15/17	MA	SW6010C
Vanadium	37.3	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	96.5	0.41	mg/Kg	1	11/15/17	MA	SW6010C
Percent Solid	84		%		11/10/17	Q	SW846-%Solid
SPLP Cyanide	0.01	0.01	mg/L	1	11/28/17	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	35.8	0.60	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
SPLP Extraction Cyanide (Total)	Completed				11/22/17	Q	SW1312
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4600	290	mg/Kg	5	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/14/17	JRB	CTETPH 8015D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-104

Phoenix I.D.: BZ39902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	11/14/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	390	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	101		%	10	11/13/17	AW	30 - 150 %
% TCMX	74		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
2-Chlorotoluene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	11/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
4-Chlorotoluene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	11/13/17	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	11/13/17	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Benzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromodichloromethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-104

Phoenix I.D.: BZ39902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Ethylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Isopropylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
m&p-Xylene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	11/13/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	11/13/17	JLI	SW8260C
Naphthalene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
n-Butylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
n-Propylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
o-Xylene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
sec-Butylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Styrene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
tert-Butylbenzene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	11/13/17	JLI	SW8260C
Toluene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Total Xylenes	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	11/13/17	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	11/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/13/17	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	11/13/17	JLI	70 - 130 %
% Dibromofluoromethane	105		%	1	11/13/17	JLI	70 - 130 %
% Toluene-d8	100		%	1	11/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-104

Phoenix I.D.: BZ39902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Chlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylnaphthalene	3200	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitroaniline	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitrophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3900	ug/Kg	10	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1800	ug/Kg	10	11/11/17	DD	SW8270D
3-Nitroaniline	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	3900	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloroaniline	ND	1800	ug/Kg	10	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitrophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthylene	16000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acetophenone	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Aniline	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D
Anthracene	5600	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benz(a)anthracene	9500	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzidine	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(a)pyrene	12000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	18000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(ghi)perylene	23000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	20000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzoic acid	ND	7800	ug/Kg	10	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Carbazole	ND	1600	ug/Kg	10	11/11/17	DD	SW8270D
Chrysene	16000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	5500	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dibenzofuran	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
Diethyl phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dimethylphthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	7800	ug/Kg	10	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-104

Phoenix I.D.: BZ39902

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Fluoranthene	8200	2700	ug/Kg	10	11/11/17	DD	SW8270D
Fluorene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachloroethane	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	23000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Isophorone	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Naphthalene	3600	2700	ug/Kg	10	11/11/17	DD	SW8270D
Nitrobenzene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1300	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachlorophenol	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Phenanthrene	3500	2700	ug/Kg	10	11/11/17	DD	SW8270D
Phenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Pyrene	14000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/11/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-104

Phoenix I.D.: BZ39902

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:
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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C10 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

Total Cyanide:
This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.)
A sample bias can not be ruled out.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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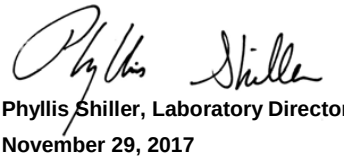

Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	14:55
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39903

Project ID: ROCKVILLE MGP
Client ID: SS-105

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	9.93	0.78	mg/Kg	1	11/15/17	MA	SW6010C
Barium	42.1	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.37	0.31	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	0.58	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	14.1	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Copper	51.6	0.39	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.09	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	9.38	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Lead	55.4	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/15/17	MA	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	11/15/17	MA	SW6010C
Vanadium	25.2	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	108	0.39	mg/Kg	1	11/15/17	MA	SW6010C
Percent Solid	89		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.70	0.56	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	350	280	mg/Kg	5	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	86		%	5	11/14/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-105

Phoenix I.D.: BZ39903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	70		%	10	11/13/17	AW	30 - 150 %
% TCMX	63		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	11/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	11/13/17	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	11/13/17	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-105

Phoenix I.D.: BZ39903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	11/13/17	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	11/13/17	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	11/13/17	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	11/13/17	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	11/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	11/13/17	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	11/13/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	11/13/17	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-105

Phoenix I.D.: BZ39903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	11/11/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Acenaphthylene	2900	260	ug/Kg	1	11/11/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Anthracene	820	260	ug/Kg	1	11/11/17	DD	SW8270D
Benz(a)anthracene	1300	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzidine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(a)pyrene	2200	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	1900	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(ghi)perylene	3300	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	2000	260	ug/Kg	1	11/11/17	DD	SW8270D
Benzoic acid	ND	730	ug/Kg	1	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Chrysene	1600	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	610	260	ug/Kg	1	11/11/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Fluoranthene	1500	260	ug/Kg	1	11/11/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SS-105

Phoenix I.D.: BZ39903

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2600	260	ug/Kg	1	11/11/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Naphthalene	260	260	ug/Kg	1	11/11/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
Phenanthrene	330	260	ug/Kg	1	11/11/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyrene	2300	260	ug/Kg	1	11/11/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	71		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	52		%	1	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	11/11/17	DD	30 - 130 %
% Phenol-d5	59		%	1	11/11/17	DD	30 - 130 %
% Terphenyl-d14	68		%	1	11/11/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-105
Phoenix I.D.: BZ39903

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 C10 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 29, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/10/17	15:00
Location Code:	TIGHE-DAS	Received by:	LB	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	17-0755-044				

Laboratory Data

SDG ID: GBZ39898
Phoenix ID: BZ39904

Project ID: ROCKVILLE MGP
Client ID: SS-106

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Arsenic	226	8.0	mg/Kg	10	11/16/17	MA	SW6010C
Barium	68.7	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Beryllium	0.49	0.32	mg/Kg	1	11/15/17	MA	SW6010C
Cadmium	8.72	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Chromium	15.7	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Copper	151	0.40	mg/kg	1	11/15/17	MA	SW6010C
Mercury	0.35	0.03	mg/Kg	1	11/14/17	RS	SW7471B
Nickel	11.9	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Lead	166	4.0	mg/Kg	10	11/16/17	MA	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	11/15/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/15/17	MA	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Arsenic	0.089	0.004	mg/L	1	11/27/17	MA	SW6010C
SPLP Barium	0.011	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	11/27/17	MA	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Copper	0.013	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/27/17	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Lead	0.029	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	11/27/17	MA	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	11/27/17	MA	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	11/27/17	MA	SW6010C
SPLP Zinc	0.127	0.010	mg/L	1	11/27/17	MA	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	11/15/17	MA	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-106

Phoenix I.D.: BZ39904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				11/27/17	Q/W	SW3005A
Vanadium	34.7	0.40	mg/Kg	1	11/15/17	MA	SW6010C
Zinc	975	4.0	mg/Kg	10	11/16/17	MA	SW6010C
Percent Solid	86		%		11/10/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	10.7	0.58	mg/Kg	1	11/13/17	O/GD	SW9012B
Soil Extraction for PCB	Completed				11/10/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/10/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/13/17	BC/VCK	SW3545A
Mercury Digestion	Completed				11/14/17	W/W	SW7471B
SPLP Digestion Mercury	Completed				11/27/17	Q/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/22/17	Q	SW1312
SPLP Extraction for Organics	Completed				11/22/17	Q	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/27/17	JJ/I	SW3510C/SW3520C
Total Metals Digest	Completed				11/13/17	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1200	280	mg/Kg	5	11/14/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/14/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	5	11/14/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	11/13/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	99		%	10	11/13/17	AW	30 - 150 %
% TCMX	81		%	10	11/13/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	11/15/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloroethene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,1-Dichloropropene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-106

Phoenix I.D.: BZ39904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,2-Dichloropropane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
1,3-Dichloropropane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
2,2-Dichloropropane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
2-Chlorotoluene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
2-Hexanone	ND	38	ug/Kg	1	11/13/17	JLI	SW8260C
2-Isopropyltoluene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
4-Chlorotoluene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	38	ug/Kg	1	11/13/17	JLI	SW8260C
Acetone	ND	380	ug/Kg	1	11/13/17	JLI	SW8260C
Acrylonitrile	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Benzene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Bromobenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
Bromochloromethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Bromodichloromethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Bromoform	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Bromomethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon Disulfide	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Carbon tetrachloride	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Chlorobenzene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Chloroform	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Chloromethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromochloromethane	ND	4.5	ug/Kg	1	11/13/17	JLI	SW8260C
Dibromomethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Dichlorodifluoromethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Ethylbenzene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Hexachlorobutadiene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
Isopropylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
m&p-Xylene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	45	ug/Kg	1	11/13/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	11/13/17	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	11/13/17	JLI	SW8260C
Naphthalene	170	130	ug/Kg	50	11/15/17	JLI	SW8260C
n-Butylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
n-Propylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
o-Xylene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
p-Isopropyltoluene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
sec-Butylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
Styrene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
tert-Butylbenzene	ND	330	ug/Kg	50	11/15/17	JLI	SW8260C
Tetrachloroethene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	11/13/17	JLI	SW8260C
Toluene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SS-106

Phoenix I.D.: BZ39904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	660	ug/Kg	50	11/15/17	JLI	SW8260C
Trichloroethene	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorofluoromethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
Vinyl chloride	ND	7.6	ug/Kg	1	11/13/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	11/15/17	JLI	70 - 130 %
% Bromofluorobenzene	94		%	50	11/15/17	JLI	70 - 130 %
% Dibromofluoromethane	112		%	1	11/13/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	11/13/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dichlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dimethylphenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	11/11/17	DD	SW8270D
2,4-Dinitrotoluene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
2,6-Dinitrotoluene	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
2-Chloronaphthalene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Chlorophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylnaphthalene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitroaniline	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
2-Nitrophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3800	ug/Kg	10	11/11/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	1800	ug/Kg	10	11/11/17	DD	SW8270D
3-Nitroaniline	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	3800	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4-Chloroaniline	ND	1800	ug/Kg	10	11/11/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	11/11/17	DD	SW8270D
4-Nitrophenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acenaphthylene	5800	2700	ug/Kg	10	11/11/17	DD	SW8270D
Acetophenone	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Aniline	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Anthracene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benz(a)anthracene	3400	2700	ug/Kg	10	11/11/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-106

Phoenix I.D.: BZ39904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzidine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(a)pyrene	6200	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(b)fluoranthene	5900	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(ghi)perylene	11000	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzo(k)fluoranthene	5800	2700	ug/Kg	10	11/11/17	DD	SW8270D
Benzoic acid	ND	7600	ug/Kg	10	11/11/17	DD	SW8270D
Benzyl butyl phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	11/11/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Carbazole	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Chrysene	4800	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dibenzofuran	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
Diethyl phthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Dimethylphthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-butylphthalate	ND	7600	ug/Kg	10	11/11/17	DD	SW8270D
Di-n-octylphthalate	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Fluoranthene	3900	2700	ug/Kg	10	11/11/17	DD	SW8270D
Fluorene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobenzene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Hexachloroethane	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	9700	2700	ug/Kg	10	11/11/17	DD	SW8270D
Isophorone	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Naphthalene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Nitrobenzene	ND	1300	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodimethylamine	ND	1100	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	1200	ug/Kg	10	11/11/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	1500	ug/Kg	10	11/11/17	DD	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Pentachlorophenol	ND	1400	ug/Kg	10	11/11/17	DD	SW8270D
Phenanthrene	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Phenol	ND	2700	ug/Kg	10	11/11/17	DD	SW8270D
Pyrene	5800	2700	ug/Kg	10	11/11/17	DD	SW8270D
Pyridine	ND	1000	ug/Kg	10	11/11/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	11/11/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/11/17	DD	30 - 130 %
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Acenaphthylene	0.43	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SS-106

Phoenix I.D.: BZ39904

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	0.11	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.20	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(a)pyrene	0.29	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.36	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	0.45	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.32	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Chrysene	0.27	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.09	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Fluoranthene	0.26	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.34	0.02	ug/L	1	11/28/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
Phenanthrene	0.10	0.05	ug/L	1	11/28/17	DD	SW8270D (SIM)
Pyrene	0.40	0.09	ug/L	1	11/28/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	62		%	1	11/28/17	DD	30 - 130 %
% Nitrobenzene-d5	53		%	1	11/28/17	DD	30 - 130 %
% Terphenyl-d14	93		%	1	11/28/17	DD	30 - 130 %
Field Extraction	Completed				11/10/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SS-106
Phoenix I.D.: BZ39904

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:
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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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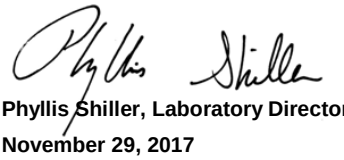

Phyllis Shiller, Laboratory Director
November 29, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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QA/QC Report

November 29, 2017

QA/QC Data

SDG I.D.: GBZ39898

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 409479 (mg/kg), QC Sample No: BZ39455 (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	93.0	81.7	12.9	96.5			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 409405 (mg/kg), QC Sample No: BZ39898 (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)														
ICP Metals - Soil														
Antimony	BRL	3.3	<3.5	<3.8	NC	95.9			88.0			75 - 125	30	
Arsenic	BRL	0.67	14.9	11.5	25.8	99.6			93.6			75 - 125	30	
Barium	BRL	0.33	64.2	57.3	11.4	103			106			75 - 125	30	
Beryllium	BRL	0.27	0.46	0.42	NC	103			103			75 - 125	30	
Cadmium	BRL	0.33	1.01	0.67	NC	109			101			75 - 125	30	
Chromium	BRL	0.33	17.3	15.5	11.0	105			105			75 - 125	30	
Copper	BRL	0.33	76.0	67.9	11.3	101			100			75 - 125	30	
Lead	BRL	0.33	61.4	65.2	6.00	107			101			75 - 125	30	
Nickel	BRL	0.33	13.1	11.9	9.60	109			103			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.5	NC	95.5			79.9			75 - 125	30	
Silver	BRL	0.33	<0.35	<0.38	NC	94.1			103			75 - 125	30	
Thallium	BRL	3.0	<3.2	<3.4	NC	104			105			75 - 125	30	
Vanadium	BRL	0.33	41.3	45.6	9.90	106			106			75 - 125	30	
Zinc	BRL	0.33	118	242	68.9	103			99.1			75 - 125	30	r
QA/QC Batch 410764 (mg/L), QC Sample No: BZ46342 (BZ39900, BZ39904)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	<0.005	<0.005	NC	103			104			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	100			101			75 - 125	20	
Barium	BRL	0.010	0.030	0.031	NC	101			103			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			104			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			101			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	101			101			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	103			104			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	104			104			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	103			103			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	96.3			97.7			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	101			101			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	101			101			75 - 125	20	
Zinc	BRL	0.010	0.013	0.014	NC	103			102			75 - 125	20	
QA/QC Batch 410762 (mg/L), QC Sample No: BZ46342 (BZ39900, BZ39904)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	83.3			90.5			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														

r = This parameter is outside laboratory RPD specified recovery limits.

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QA/QC Report

November 29, 2017

QA/QC Data

SDG I.D.: GBZ39898

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 409305 (mg/Kg), QC Sample No: BZ39938 50X (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	93.0			101			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 410856 (mg/L), QC Sample No: BZ45701 (BZ39902)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	97.8			98.5			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

November 29, 2017

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409562 (ug/kg), QC Sample No: BZ39571 (BZ39901, BZ39902, BZ39903, BZ39904)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	103	107	3.8	102	103	1.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	107	108	0.9	108	107	0.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	101	104	2.9	107	105	1.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	100	2.0	99	100	1.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	105	3.9	106	105	0.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	107	108	0.9	102	102	0.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	108	110	1.8	115	114	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	103	109	5.7	113	111	1.8	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	99	100	1.0	99	97	2.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	106	109	2.8	113	111	1.8	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	101	103	2.0	108	106	1.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	104	108	3.8	101	99	2.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	106	4.8	103	104	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	99	101	2.0	104	103	1.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	107	110	2.8	106	104	1.9	70 - 130	30	
1,2-Dichloropropane	ND	5.0	97	101	4.0	104	104	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	104	105	1.0	111	110	0.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	101	103	2.0	105	105	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	99	104	4.9	102	101	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	99	101	2.0	104	104	0.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	113	117	3.5	111	105	5.6	70 - 130	30	
2-Chlorotoluene	ND	5.0	100	102	2.0	108	107	0.9	70 - 130	30	
2-Hexanone	ND	25	87	91	4.5	87	85	2.3	70 - 130	30	
2-Isopropyltoluene	ND	5.0	102	103	1.0	109	108	0.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	101	101	0.0	107	105	1.9	70 - 130	30	
4-Methyl-2-pentanone	ND	25	100	105	4.9	101	100	1.0	70 - 130	30	
Acetone	ND	10	62	62	0.0	37	38	2.7	70 - 130	30	l,m
Acrylonitrile	ND	5.0	93	98	5.2	94	94	0.0	70 - 130	30	
Benzene	ND	1.0	98	100	2.0	105	105	0.0	70 - 130	30	
Bromobenzene	ND	5.0	98	102	4.0	106	105	0.9	70 - 130	30	
Bromochloromethane	ND	5.0	97	104	7.0	102	101	1.0	70 - 130	30	
Bromodichloromethane	ND	5.0	103	106	2.9	101	101	0.0	70 - 130	30	
Bromoform	ND	5.0	103	110	6.6	97	97	0.0	70 - 130	30	
Bromomethane	ND	5.0	100	105	4.9	92	97	5.3	70 - 130	30	
Carbon Disulfide	ND	5.0	116	120	3.4	110	110	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	110	114	3.6	107	104	2.8	70 - 130	30	
Chlorobenzene	ND	5.0	99	102	3.0	104	104	0.0	70 - 130	30	
Chloroethane	ND	5.0	103	106	2.9	60	58	3.4	70 - 130	30	m
Chloroform	ND	5.0	100	105	4.9	102	101	1.0	70 - 130	30	
Chloromethane	ND	5.0	98	102	4.0	110	108	1.8	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	102	4.0	104	104	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	107	110	2.8	107	107	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	107	111	3.7	104	104	0.0	70 - 130	30	
Dibromomethane	ND	5.0	99	102	3.0	100	99	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	120	121	0.8	135	134	0.7	70 - 130	30	m
Ethylbenzene	ND	1.0	101	102	1.0	106	106	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	110	113	2.7	118	115	2.6	70 - 130	30	
Isopropylbenzene	ND	1.0	105	106	0.9	115	113	1.8	70 - 130	30	
m&p-Xylene	ND	2.0	101	104	2.9	106	107	0.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	85	86	1.2	81	80	1.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	93	98	5.2	95	95	0.0	70 - 130	30	
Methylene chloride	ND	5.0	90	94	4.3	95	93	2.1	70 - 130	30	
Naphthalene	ND	5.0	106	114	7.3	115	115	0.0	70 - 130	30	
n-Butylbenzene	ND	1.0	108	108	0.0	112	110	1.8	70 - 130	30	
n-Propylbenzene	ND	1.0	104	104	0.0	112	110	1.8	70 - 130	30	
o-Xylene	ND	2.0	105	109	3.7	111	110	0.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	106	107	0.9	113	112	0.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	109	110	0.9	116	115	0.9	70 - 130	30	
Styrene	ND	5.0	102	106	3.8	107	107	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	104	105	1.0	113	111	1.8	70 - 130	30	
Tetrachloroethene	ND	5.0	107	108	0.9	111	111	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	95	100	5.1	92	90	2.2	70 - 130	30	
Toluene	ND	1.0	98	100	2.0	105	104	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	101	103	2.0	108	109	0.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	106	109	2.8	101	100	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	105	106	0.9	100	97	3.0	70 - 130	30	
Trichloroethene	ND	5.0	101	103	2.0	105	107	1.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	109	112	2.7	39	38	2.6	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	107	108	0.9	107	104	2.8	70 - 130	30	
Vinyl chloride	ND	5.0	105	106	0.9	136	139	2.2	70 - 130	30	m
% 1,2-dichlorobenzene-d4	101	%	102	101	1.0	102	100	2.0	70 - 130	30	
% Bromofluorobenzene	98	%	103	104	1.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	102	%	100	100	0.0	96	95	1.0	70 - 130	30	
% Toluene-d8	101	%	101	101	0.0	100	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 409491 (ug/kg), QC Sample No: BZ39899 (BZ39898, BZ39899, BZ39900)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	108	105	2.8	108	105	2.8	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	114	111	2.7	116	114	1.7	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	105	107	1.9	104	104	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	102	102	0.0	100	100	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	107	107	0.0	107	105	1.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	110	107	2.8	106	107	0.9	70 - 130	30	
1,1-Dichloropropene	ND	5.0	113	110	2.7	116	115	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	107	108	0.9	110	109	0.9	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	99	102	3.0	101	99	2.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	105	107	1.9	105	104	1.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	106	103	2.9	105	104	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	103	107	3.8	100	101	1.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	106	107	0.9	99	99	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	101	101	0.0	103	101	2.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	111	111	0.0	114	114	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloropropane	ND	5.0	103	103	0.0	104	103	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	108	107	0.9	109	107	1.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	104	102	1.9	103	101	2.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	103	104	1.0	102	101	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	102	100	2.0	102	99	3.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	120	117	2.5	113	106	6.4	70 - 130	30	
2-Chlorotoluene	ND	5.0	105	104	1.0	104	104	0.0	70 - 130	30	
2-Hexanone	ND	25	89	93	4.4	84	84	0.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	107	105	1.9	108	105	2.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	104	103	1.0	103	101	2.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	103	107	3.8	99	101	2.0	70 - 130	30	
Acetone	ND	10	60	59	1.7	55	53	3.7	70 - 130	30	l,m
Acrylonitrile	ND	5.0	98	101	3.0	92	90	2.2	70 - 130	30	
Benzene	ND	1.0	103	103	0.0	105	104	1.0	70 - 130	30	
Bromobenzene	ND	5.0	104	104	0.0	104	103	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	103	103	0.0	102	102	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	108	108	0.0	109	106	2.8	70 - 130	30	
Bromoform	ND	5.0	107	109	1.9	106	102	3.8	70 - 130	30	
Bromomethane	ND	5.0	109	105	3.7	93	93	0.0	70 - 130	30	
Carbon Disulfide	ND	5.0	121	119	1.7	113	111	1.8	70 - 130	30	
Carbon tetrachloride	ND	5.0	118	114	3.4	113	111	1.8	70 - 130	30	
Chlorobenzene	ND	5.0	103	102	1.0	104	101	2.9	70 - 130	30	
Chloroethane	ND	5.0	107	106	0.9	62	59	5.0	70 - 130	30	m
Chloroform	ND	5.0	108	105	2.8	106	104	1.9	70 - 130	30	
Chloromethane	ND	5.0	106	104	1.9	102	101	1.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	106	103	2.9	105	104	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	111	109	1.8	104	104	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	110	110	0.0	110	107	2.8	70 - 130	30	
Dibromomethane	ND	5.0	103	103	0.0	102	100	2.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	133	127	4.6	134	130	3.0	70 - 130	30	l,m
Ethylbenzene	ND	1.0	105	104	1.0	106	103	2.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	114	113	0.9	115	116	0.9	70 - 130	30	
Isopropylbenzene	ND	1.0	109	107	1.9	110	108	1.8	70 - 130	30	
m&p-Xylene	ND	2.0	105	104	1.0	106	104	1.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	82	89	8.2	78	79	1.3	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	97	99	2.0	97	97	0.0	70 - 130	30	
Methylene chloride	ND	5.0	93	92	1.1	91	93	2.2	70 - 130	30	
Naphthalene	ND	5.0	109	114	4.5	113	113	0.0	70 - 130	30	
n-Butylbenzene	ND	1.0	110	107	2.8	109	107	1.9	70 - 130	30	
n-Propylbenzene	ND	1.0	108	106	1.9	109	105	3.7	70 - 130	30	
o-Xylene	ND	2.0	111	109	1.8	111	108	2.7	70 - 130	30	
p-Isopropyltoluene	ND	1.0	111	109	1.8	110	108	1.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	113	112	0.9	114	113	0.9	70 - 130	30	
Styrene	ND	5.0	107	106	0.9	107	105	1.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	110	108	1.8	111	109	1.8	70 - 130	30	
Tetrachloroethene	ND	5.0	112	109	2.7	112	110	1.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	96	101	5.1	92	92	0.0	70 - 130	30	
Toluene	ND	1.0	105	103	1.9	104	103	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	105	103	1.9	105	104	1.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	109	109	0.0	102	102	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	106	109	2.8	92	91	1.1	70 - 130	30	
Trichloroethene	ND	5.0	107	105	1.9	108	107	0.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	114	110	3.6	42	38	10.0	70 - 130	30	m

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorotrifluoroethane	ND	5.0	112	110	1.8	111	111	0.0	70 - 130	30	
Vinyl chloride	ND	5.0	109	108	0.9	122	121	0.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	103	%	100	101	1.0	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	96	%	103	101	2.0	102	101	1.0	70 - 130	30	
% Dibromofluoromethane	103	%	103	100	3.0	97	98	1.0	70 - 130	30	
% Toluene-d8	100	%	101	101	0.0	101	102	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 409184 (ug/Kg), QC Sample No: BZ39905 2X (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	87	98	11.9	92	87	5.6	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	97	106	8.9	99	93	6.3	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	86	%	107	112	4.6	106	101	4.8	30 - 150	30	
% TCMX (Surrogate Rec)	77	%	92	100	8.3	100	98	2.0	30 - 150	30	
QA/QC Batch 409162 (ug/kg), QC Sample No: BZ39905 (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	66	63	4.7	65	59	9.7	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	63	64	1.6	60	55	8.7	30 - 130	30	
1,2-Dichlorobenzene	ND	180	63	62	1.6	62	57	8.4	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	73	71	2.8	78	63	21.3	30 - 130	30	
1,3-Dichlorobenzene	ND	230	60	61	1.7	59	53	10.7	30 - 130	30	
1,4-Dichlorobenzene	ND	230	63	61	3.2	61	54	12.2	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	72	70	2.8	70	64	9.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	70	70	0.0	68	61	10.9	30 - 130	30	
2,4-Dichlorophenol	ND	130	68	66	3.0	66	62	6.3	30 - 130	30	
2,4-Dimethylphenol	ND	230	70	68	2.9	71	65	8.8	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	14	NC	55	35	44.4	30 - 130	30	l,r
2,4-Dinitrotoluene	ND	130	75	75	0.0	74	67	9.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	76	75	1.3	75	67	11.3	30 - 130	30	
2-Chloronaphthalene	ND	230	72	70	2.8	69	61	12.3	30 - 130	30	
2-Chlorophenol	ND	230	63	63	0.0	66	58	12.9	30 - 130	30	
2-Methylnaphthalene	ND	230	64	62	3.2	58	52	10.9	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	65	63	3.1	69	60	14.0	30 - 130	30	
2-Nitroaniline	ND	330	97	92	5.3	98	94	4.2	30 - 130	30	
2-Nitrophenol	ND	230	69	67	2.9	66	63	4.7	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	71	68	4.3	76	67	12.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	81	65	21.9	89	81	9.4	30 - 130	30	
3-Nitroaniline	ND	330	82	77	6.3	81	75	7.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	12	34	95.7	64	50	24.6	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	75	71	5.5	69	61	12.3	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	71	69	2.9	72	68	5.7	30 - 130	30	
4-Chloroaniline	ND	230	65	56	14.9	64	63	1.6	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	72	70	2.8	71	62	13.5	30 - 130	30	
4-Nitroaniline	ND	230	75	74	1.3	72	68	5.7	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
4-Nitrophenol	ND	230	70	70	0.0	68	64	6.1	30 - 130	30
Acenaphthene	ND	230	78	75	3.9	56	46	19.6	30 - 130	30
Acenaphthylene	ND	130	74	73	1.4	71	64	10.4	30 - 130	30
Acetophenone	ND	230	64	64	0.0	68	60	12.5	30 - 130	30
Aniline	ND	330	54	44	20.4	63	54	15.4	30 - 130	30
Anthracene	ND	230	78	75	3.9	51	42	19.4	30 - 130	30
Benz(a)anthracene	ND	230	77	74	4.0	NC	NC	NC	30 - 130	30
Benzidine	ND	330	45	34	27.8	50	48	4.1	30 - 130	30
Benzo(a)pyrene	ND	130	76	73	4.0	NC	NC	NC	30 - 130	30
Benzo(b)fluoranthene	ND	160	80	76	5.1	52	41	23.7	30 - 130	30
Benzo(ghi)perylene	ND	230	70	66	5.9	56	47	17.5	30 - 130	30
Benzo(k)fluoranthene	ND	230	78	75	3.9	48	41	15.7	30 - 130	30
Benzoic Acid	ND	330	<10	17	NC	34	35	2.9	30 - 130	30
Benzyl butyl phthalate	ND	230	84	81	3.6	78	70	10.8	30 - 130	30
Bis(2-chloroethoxy)methane	ND	230	71	71	0.0	67	61	9.4	30 - 130	30
Bis(2-chloroethyl)ether	ND	130	53	58	9.0	55	49	11.5	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	230	58	57	1.7	58	53	9.0	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	230	85	81	4.8	79	70	12.1	30 - 130	30
Carbazole	ND	230	78	74	5.3	56	48	15.4	30 - 130	30
Chrysene	ND	230	77	75	2.6	NC	NC	NC	30 - 130	30
Dibenz(a,h)anthracene	ND	130	77	74	4.0	72	63	13.3	30 - 130	30
Dibenzofuran	ND	230	72	70	2.8	57	50	13.1	30 - 130	30
Diethyl phthalate	ND	230	75	73	2.7	72	65	10.2	30 - 130	30
Dimethylphthalate	ND	230	74	72	2.7	70	63	10.5	30 - 130	30
Di-n-butylphthalate	ND	670	85	82	3.6	74	68	8.5	30 - 130	30
Di-n-octylphthalate	ND	230	92	88	4.4	84	76	10.0	30 - 130	30
Fluoranthene	ND	230	78	74	5.3	NC	NC	NC	30 - 130	30
Fluorene	ND	230	76	74	2.7	59	50	16.5	30 - 130	30
Hexachlorobenzene	ND	130	78	74	5.3	75	67	11.3	30 - 130	30
Hexachlorobutadiene	ND	230	64	63	1.6	59	54	8.8	30 - 130	30
Hexachlorocyclopentadiene	ND	230	63	60	4.9	57	44	25.7	30 - 130	30
Hexachloroethane	ND	130	58	59	1.7	57	53	7.3	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	74	69	7.0	54	43	22.7	30 - 130	30
Isophorone	ND	130	65	64	1.6	61	57	6.8	30 - 130	30
Naphthalene	ND	230	66	65	1.5	53	46	14.1	30 - 130	30
Nitrobenzene	ND	130	66	66	0.0	71	63	11.9	30 - 130	30
N-Nitrosodimethylamine	ND	230	51	53	3.8	50	46	8.3	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	70	67	4.4	75	64	15.8	30 - 130	30
N-Nitrosodiphenylamine	ND	130	76	74	2.7	75	67	11.3	30 - 130	30
Pentachloronitrobenzene	ND	230	74	72	2.7	71	65	8.8	30 - 130	30
Pentachlorophenol	ND	230	48	60	22.2	61	56	8.5	30 - 130	30
Phenanthrene	ND	130	75	73	2.7	NC	NC	NC	30 - 130	30
Phenol	ND	230	66	64	3.1	69	61	12.3	30 - 130	30
Pyrene	ND	230	80	75	6.5	NC	NC	NC	30 - 130	30
Pyridine	ND	230	39	39	0.0	37	37	0.0	30 - 130	30
% 2,4,6-Tribromophenol	70	%	78	74	5.3	69	70	1.4	30 - 130	30
% 2-Fluorobiphenyl	69	%	75	72	4.1	67	62	7.8	30 - 130	30
% 2-Fluorophenol	55	%	61	61	0.0	61	56	8.5	30 - 130	30
% Nitrobenzene-d5	62	%	67	66	1.5	69	64	7.5	30 - 130	30
% Phenol-d5	60	%	67	64	4.6	67	62	7.8	30 - 130	30
% Terphenyl-d14	74	%	79	74	6.5	68	64	6.1	30 - 130	30

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
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 409441 (mg/Kg), QC Sample No: BZ40150 (BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	92	92	0.0	98	95	3.1	60 - 120	30	
% n-Pentacosane	65	%	74	76	2.7	80	78	2.5	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 410045 (ug/kg), QC Sample No: BZ40876 (BZ39904 (50X))											
Volatiles - Soil											
1,1,2,2-Tetrachloroethane	ND	3.0	98	96	2.1	104	100	3.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	97	96	1.0	111	104	6.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	95	95	0.0	101	94	7.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	92	91	1.1	100	99	1.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	97	97	0.0	101	98	3.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	95	94	1.1	100	95	5.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	98	98	0.0	102	99	3.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	95	95	0.0	100	97	3.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	95	93	2.1	96	94	2.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	95	98	3.1	102	99	3.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	100	99	1.0	105	101	3.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	95	96	1.0	99	96	3.1	70 - 130	30	
Bromobenzene	ND	5.0	94	95	1.1	100	98	2.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	97	98	1.0	104	98	5.9	70 - 130	30	
Isopropylbenzene	ND	1.0	100	101	1.0	107	102	4.8	70 - 130	30	
Naphthalene	ND	5.0	108	109	0.9	132	121	8.7	70 - 130	30	m
n-Butylbenzene	ND	1.0	103	102	1.0	104	103	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	97	97	0.0	103	100	3.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	101	102	1.0	106	102	3.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	106	0.9	112	106	5.5	70 - 130	30	
tert-Butylbenzene	ND	1.0	99	101	2.0	108	101	6.7	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	103	105	1.9	100	95	5.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	105	%	99	100	1.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	92	%	99	103	4.0	98	100	2.0	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 410834 (ug/L), QC Sample No: BZ46249 (BZ39900, BZ39904)											
Semivolatiles by SIM											
2-Methylnaphthalene	ND	0.05	55	59	7.0				30 - 130	20	
Acenaphthene	ND	0.05	77	78	1.3				30 - 130	20	
Acenaphthylene	ND	0.04	87	86	1.2				30 - 130	20	
Anthracene	ND	0.02	99	97	2.0				30 - 130	20	
Benz(a)anthracene	ND	0.02	92	90	2.2				30 - 130	20	
Benzo(a)pyrene	ND	0.02	100	94	6.2				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	99	102	3.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	89	77	14.5				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	104	99	4.9				30 - 130	20	
Chrysene	ND	0.02	82	81	1.2				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	108	94	13.9				30 - 130	20	

QA/QC Data

SDG I.D.: GBZ39898

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Fluoranthene	ND	0.04	97	95	2.1				30 - 130	20
Fluorene	ND	0.05	87	85	2.3				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	100	88	12.8				30 - 130	20
Naphthalene	ND	0.05	43	48	11.0				30 - 130	20
Phenanthrene	ND	0.05	83	83	0.0				30 - 130	20
Pyrene	ND	0.02	101	98	3.0				30 - 130	20
% 2-Fluorobiphenyl	69	%	65	71	8.8				30 - 130	20
% Nitrobenzene-d5	69	%	46	48	4.3				30 - 130	20
% Terphenyl-d14	106	%	100	96	4.1				30 - 130	20

Comment:

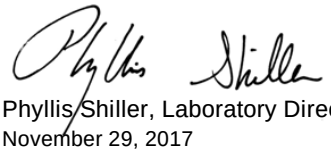
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 29, 2017

Wednesday, November 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ39898 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39898	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1200	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1200	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1300	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1200	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
BZ39898	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1100	260	1000	1000	ug/Kg
BZ39898	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.9	0.71	10	10	mg/Kg
BZ39899	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	12.5	0.78	10	10	mg/Kg
BZ39900	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	980	200	200	ug/Kg
BZ39900	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1600	1400	1400	ug/Kg
BZ39900	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1100	200	200	ug/Kg
BZ39900	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	25000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	3900	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	24000	2400	8400	8400	ug/Kg
BZ39900	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1400	200	200	ug/Kg
BZ39900	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1100	900	900	ug/Kg
BZ39900	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1400	900	900	ug/Kg
BZ39900	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1400	770	770	ug/Kg
BZ39900	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	35000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	45000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	37000	2400	8400	8400	ug/Kg
BZ39900	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	40000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg
BZ39900	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	25000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	3900	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2400	2000	2000	ug/Kg
BZ39900	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39900	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	44000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	3500	1000	1000	ug/Kg
BZ39900	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / APS Organics	ND	2400	1400	1400	ug/Kg
BZ39900	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1200	1200	ug/Kg
BZ39900	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2400	2000	2000	ug/Kg
BZ39900	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg

Wednesday, November 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ39898 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39900	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ39900	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ39900	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1000	1000	ug/Kg
BZ39900	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	24000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	45000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	35000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	37000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	60000	2400	56000	56000	ug/Kg
BZ39900	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	40000	2400	1000	1000	ug/Kg
BZ39900	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1300	1000	1000	ug/Kg
BZ39900	$8270-SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	74000	2400	40000	40000	ug/Kg
BZ39900	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	3700	260	500	500	mg/Kg
BZ39900	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	3700	260	2500	2500	mg/Kg
BZ39900	PB-SM	Lead	CT / RSR DEC RES (mg/kg) / Inorganics	568	3.2	400	400	mg/Kg
BZ39900	SPLP-PB	SPLP Lead	CT / RSR GB (mg/l) TCLP / Inorganic/PCB	0.277	0.010	0.15	0.15	mg/L
BZ39901	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4300	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	770	770	ug/Kg
BZ39901	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
BZ39901	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1000	200	200	ug/Kg
BZ39901	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	900	900	ug/Kg
BZ39901	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1700	1400	1400	ug/Kg
BZ39901	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	16000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	17000	2600	8400	8400	ug/Kg
BZ39901	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	200	200	ug/Kg
BZ39901	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	200	200	ug/Kg
BZ39901	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	2600	8400	8400	ug/Kg
BZ39901	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	11000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39901	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	12000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39901	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	16000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ39901	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	17000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4300	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg

Wednesday, November 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ39898 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39901	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39901	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39901	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1200	1200	ug/Kg
BZ39901	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1700	1000	1000	ug/Kg
BZ39901	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2600	2000	2000	ug/Kg
BZ39901	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39901	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2600	2000	2000	ug/Kg
BZ39901	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39901	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg
BZ39901	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	12000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	11000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	12000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	18000	2600	1000	1000	ug/Kg
BZ39901	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39901	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	3100	280	500	500	mg/Kg
BZ39901	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	3100	280	2500	2500	mg/Kg
BZ39901	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	17.5	0.78	10	10	mg/Kg
BZ39902	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	900	900	ug/Kg
BZ39902	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1800	1400	1400	ug/Kg
BZ39902	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1600	200	200	ug/Kg
BZ39902	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	5500	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	23000	2700	8400	8400	ug/Kg
BZ39902	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	23000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
BZ39902	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1100	200	200	ug/Kg
BZ39902	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1300	200	200	ug/Kg
BZ39902	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1600	770	770	ug/Kg
BZ39902	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	20000	2700	8400	8400	ug/Kg
BZ39902	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9500	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ39902	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	23000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	23000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39902	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg
BZ39902	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	5500	2700	1000	1000	ug/Kg

Wednesday, November 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ39898 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39902	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2700	2000	2000	ug/Kg
BZ39902	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	16000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1400	1000	1000	ug/Kg
BZ39902	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ39902	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39902	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2700	2000	2000	ug/Kg
BZ39902	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ39902	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1400	1400	ug/Kg
BZ39902	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ39902	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1200	1200	ug/Kg
BZ39902	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ39902	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	1600	1000	1000	ug/Kg
BZ39902	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1500	1000	1000	ug/Kg
BZ39902	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	9500	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	20000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	18000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	12000	2700	1000	1000	ug/Kg
BZ39902	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	1200	1000	1000	ug/Kg
BZ39902	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4600	290	500	500	mg/Kg
BZ39902	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4600	290	2500	2500	mg/Kg
BZ39902	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	17.5	0.82	10	10	mg/Kg
BZ39903	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2600	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2200	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1900	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	3300	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1600	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2600	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1900	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2200	260	1000	1000	ug/Kg
BZ39903	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
BZ39904	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1100	200	200	ug/Kg
BZ39904	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	200	200	ug/Kg
BZ39904	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	9700	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	11000	2700	8400	8400	ug/Kg
BZ39904	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1800	1400	1400	ug/Kg
BZ39904	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	200	200	ug/Kg

Wednesday, November 29, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ39898 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39904	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	900	900	ug/Kg
BZ39904	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	770	770	ug/Kg
BZ39904	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
BZ39904	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5900	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3400	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6200	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39904	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Nitrobenzene	CT / RSR GB (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ39904	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	9700	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	4800	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	N-Nitrosodiphenylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1400	1400	ug/Kg
BZ39904	$8270-SMR	N-Nitrosodimethylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1100	1000	1000	ug/Kg
BZ39904	$8270-SMR	Carbazole	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39904	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39904	$8270-SMR	3-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2700	2000	2000	ug/Kg
BZ39904	$8270-SMR	1,2-Diphenylhydrazine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39904	$8270-SMR	2,4,6-Trichlorophenol	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39904	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39904	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
BZ39904	$8270-SMR	3,3'-Dichlorobenzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	11000	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1800	1000	1000	ug/Kg
BZ39904	$8270-SMR	Aniline	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1200	1200	ug/Kg
BZ39904	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
BZ39904	$8270-SMR	2-Nitroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	2700	2000	2000	ug/Kg
BZ39904	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39904	$8270-SMR	Hexachloroethane	CT / RSR GB (mg/kg) / Semivolatiles	ND	1100	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	6200	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3400	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	5900	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	5800	2700	1000	1000	ug/Kg
BZ39904	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg
BZ39904	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1200	280	500	500	mg/Kg
BZ39904	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	226	8.0	10	10	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

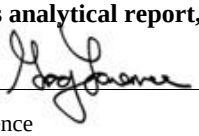
Laboratory Sample ID(s): BZ39898-BZ39904 ***Sampling Date(s):*** 11/10/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8082, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ICP Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, November 29, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

SDG Comments

Semi-volatile Organic Compounds:
Due to the concentration from target analytes not all of the requested criteria could be achieved.

SPLP Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody. In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via GC/MS selective ion monitoring (SIM).

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/13/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/13/17

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

LACHAT 11/28/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/28/17

BZ39902

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 409305 (BZ39938)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

Batch 410856 (BZ45701)

BZ39902

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-FID1 11/14/17-1 Jeff Bucko, Chemist 11/14/17

BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 11/14/17-1 Jeff Bucko, Chemist 11/14/17

BZ39898, BZ39899

The initial calibration (ETPHN13I) 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 409441 (BZ40150)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/14/17 07:51 Rick Schweitzer, Chemist 11/14/17

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 11/27/17 08:15 Rick Schweitzer, Chemist 11/27/17

BZ39900, BZ39904

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.

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Certification Report

November 29, 2017

SDG I.D.: GBZ39898

Mercury Narration

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 409479 (BZ39455)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 410762 (BZ46342)

BZ39900, BZ39904

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 409405 (Samples: BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904): -----

The Sample/Duplicate RPD exceeds the method criteria for one analyte, therefore there may be variability in the reported result. (Zinc)

Instrument:

ARCOS 11/15/17 10:24 Mike Arsenault, Chemist 11/15/17

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904, DUP39898

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 11/16/17 08:55 Mike Arsenault, Chemist 11/16/17

BZ39899, BZ39900, BZ39901, BZ39902, BZ39904

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.

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Certification Report

November 29, 2017

SDG I.D.: GBZ39898

ICP Metals Narration

BLUE 11/27/17 06:33 Mike Arsenault, Chemist 11/27/17

BZ39900, BZ39904

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 410764 (BZ46342)

BZ39900, BZ39904

All LCS recoveries were within 75 - 125 with the following exceptions: None.

QC (Site Specific):

Batch 409405 (BZ39898)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD24 11/13/17-1 Adam Werner, Chemist 11/13/17

BZ39898

The initial calibration (PC1103AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1103BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD5 11/13/17-1 Adam Werner, Chemist 11/13/17

BZ39899, BZ39901, BZ39902, BZ39903, BZ39904

The initial calibration (PC1110AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1110BI) 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-ECD6 11/14/17-1 Adam Werner, Chemist 11/14/17

BZ39900

The initial calibration (PC906AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC906BI) 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.

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RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

PCB Narration

QC (Batch Specific):

Batch 409184 (BZ39905)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409162 (Samples: BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904): -----

The LCS/LCSD recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. A slight low bias is possible. (2,4-Dinitrophenol, Benzoic Acid)

The LCS 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 analyte. The Batch MS/MSD RPD is acceptable. This analyte was not reported in the sample(s). No significant variability is suspected. (4,6-Dinitro-2-methylphenol)

Instrument:

CHEM19 11/11/17-1 Damien Drobinski, Chemist 11/11/17

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

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_1108):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.062 (0.1), Hexachlorobenzene 0.064 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1111_02-SPLIT_1108):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1), Hexachlorobenzene 0.066 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409162 (BZ39905)

BZ39898, BZ39899, BZ39900, BZ39901, BZ39902, BZ39903, BZ39904

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RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

SVOA Narration

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(12%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(14%), Benzoic Acid(17%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(95.7%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM07 11/28/17-2 Damien Drobinski, Chemist 11/28/17

BZ39900, BZ39904

Initial Calibration Verification (CHEM07/SIM_1127):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 30% (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 (CHEM07/1128_18-SIM_1127):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 410834 (BZ46249)

BZ39900, BZ39904

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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

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RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409491 (Samples: BZ39898, BZ39899, BZ39900): -----

The LCS/LCSD recovery is acceptable. One analyte in the site specific matrix spike recovery is below the lower range but within the method criteria. A slight low bias is possible. (Chloroethane)

The LCS/LCSD recovery is acceptable. One analyte in the site specific matrix spike recovery is below the method criteria. A low bias is possible. (Trichlorofluoromethane)

The QC recoveries for one analytes is below the lower range but within the method criteria. A slight low bias is possible. (Acetone)

The QC recovery for one analyte is above the upper range but was not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

QC Batch 409562 (Samples: BZ39901, BZ39902, BZ39903, BZ39904): -----

The QC recoveries for one analyte is below the method criteria. A low bias is possible. (Acetone)

Instrument:

CHEM14 11/14/17-2 Jane Li, Chemist 11/14/17

BZ39904

Initial Calibration Verification (CHEM14/VT-1111):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Naphthalene 27% (20%), trans-1,4-dichloro-2-butene 28% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1114_31-VT-1111):
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.

CHEM26 11/12/17-2 Harry Mullin, Chemist 11/12/17

BZ39898, BZ39899, BZ39900

Initial Calibration Verification (CHEM26/VT-1111):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1112_34-VT-1111):
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.

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SDG I.D.: GBZ39898

VOA Narration

The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM26 11/13/17-1 Jane Li, Chemist 11/13/17

BZ39901, BZ39902, BZ39903, BZ39904

Initial Calibration Verification (CHEM26/VT-1111):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1113_05-VT-1111):
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 409562 (BZ39571)

BZ39901, BZ39902, BZ39903, BZ39904

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(62%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(62%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 410045 (BZ40876)

BZ39904

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QC (Site Specific):

Batch 409491 (BZ39899)

BZ39898, BZ39899, BZ39900

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(60%), Dichlorodifluoromethane(133%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(59%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: Acetone(55%), Chloroethane(62%), Dichlorodifluoromethane(134%), Trichlorofluoromethane(42%)
All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(53%), Chloroethane(59%), Trichlorofluoromethane(38%)

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RCP Certification Report

November 29, 2017

SDG I.D.: GBZ39898

VOA Narration

All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.0C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 1.0 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
[ ] Fax #:
[X] Email: russell@tighebond.com
Lisa.Hess@Tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street
Suite 1100
Middletown CT

Project: Rentschler mGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/10/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	TPH	RCRA metals	TCN	PCBs	Soil VOA Vials [X] methanol [X] H2O	GL Soil container [ ] oz [ ] oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml [ ]1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
39898	SS-100	S	11/10/17	1400	X	X	X	X	X	X	3	2								
39899	SS-101			1400	X	X	X	X	X	X	3	2								
39900	SS-102			1430	X	X	X	X	X	X	3	2								
39901	SS-103			1445	X	X	X	X	X	X	3	2								
39902	SS-104			1450	X	X	X	X	X	X	3	2								
39903	SS-105			1455	X	X	X	X	X	X	3	2								
39904	SS-106	—	—	1500	X	X	X	X	X	X	3	2								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Paradise	11/10/17	1630

Comments, Special Requirements or Regulations:
Quote: 1E0125PTBA
DAS pricing

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[X] GB Mobility
[X] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[X] Other (-check)

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[X] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 734 of 1005

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, November 22, 2017 9:31 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ39898, ROCKVILLE MGP - Report Ready- SPLP PAHs and Metals
Attachments: SKMBT_C65417112209180.pdf

Hi Phoenix:

Attached is the request for SPLP PAHs and Metals for

- SS-102
- SS-106

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Monday, November 20, 2017 10:30 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ39898, ROCKVILLE MGP - Report Ready

Delivery group GBZ39898 (ROCKVILLE MGP) for the following samples:

BZ39898 - SS-100
BZ39899 - SS-101
BZ39900 - SS-102
BZ39901 - SS-103
BZ39902 - SS-104
BZ39903 - SS-105
BZ39904 - SS-106

is available for review. Please click the following link to view report data.

www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

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Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.
cc'd:lewilley@tighebond.com

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 1.0 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

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587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
☐ Fax #:
☑ Email: bvigneault@tighebond.com
Lwiley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street
Suite 1100
Middletown CT

Project: Alternative Energy
Report to: Lynn Wiley
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0758-044

added 11/22/17 1630

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/10/17

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	EPH	CLP metals	TCN	PCBs	Soil PAHs Soil 8270 only Soil 8270 only	Soil VOA Vials [ ] methanol [X] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	P, As is [ ] 250ml [ ] 500ml [ ] 1000ml	P, H2SO4 [ ] 250ml [ ] 500ml	P, HNO3 250ml	P, NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
39898	SS-100	S	11/10/17	1400	X	X	X	X	X	X					3	2					
39899	SS-101			1400	X	X	X	X	X	X					3	2					
39900	SS-102			1430	X	X	X	X	X	X	X	X			3	2					
39901	SS-103			1415	X	X	X	X	X	X					3	2					
39902	SS-104			1450	X	X	X	X	X	X		X			3	2					
39903	SS-105			1455	X	X	X	X	X	X					3	2					
39904	SS-106			1500	X	X	X	X	X	X	X	X			3	2					

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Maradie	11/10/17	1630

Comments, Special Requirements or Regulations:
Quote 10045ABA
DAS pricing

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 clp+

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

Page 65 of 66

PHOENIX
Environmental Laboratories, Inc.

Wednesday, November 22, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ40748

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 22, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/13/17	13:40
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40748
Phoenix ID: BZ40748

Project ID: ROCKVILLE MGP
Client ID: B-25 0.5-0.75

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86		%		11/13/17	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				11/14/17	JJ/CKV	SW3545A
SPLP Extraction for Organics	Completed				11/16/17	W	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/17/17	P/D	SW3510C/SW3520C
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	2700	ug/Kg	10	11/15/17	DD	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	11/15/17	DD	SW8270D
Acenaphthylene	ND	2700	ug/Kg	10	11/15/17	DD	SW8270D
Anthracene	2800	2700	ug/Kg	10	11/15/17	DD	SW8270D
Benz(a)anthracene	5800	2700	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(a)pyrene	5000	2700	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(b)fluoranthene	4600	2700	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(ghi)perylene	2800	2700	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(k)fluoranthene	4500	2700	ug/Kg	10	11/15/17	DD	SW8270D
Chrysene	6100	2700	ug/Kg	10	11/15/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	1300	ug/Kg	10	11/15/17	DD	SW8270D
Fluoranthene	16000	2700	ug/Kg	10	11/15/17	DD	SW8270D
Fluorene	ND	2700	ug/Kg	10	11/15/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2900	2700	ug/Kg	10	11/15/17	DD	SW8270D
Naphthalene	ND	2700	ug/Kg	10	11/15/17	DD	SW8270D
Phenanthrene	14000	2700	ug/Kg	10	11/15/17	DD	SW8270D
Pyrene	13000	2700	ug/Kg	10	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/15/17	DD	30 - 130 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: B-25 0.5-0.75

Phoenix I.D.: BZ40748

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.03	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Chrysene	0.02	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Fluoranthene	0.14	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	11/20/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
Phenanthrene	0.22	0.05	ug/L	1	11/20/17	DD	SW8270D (SIM)
Pyrene	0.11	0.10	ug/L	1	11/20/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	1	11/20/17	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	11/20/17	DD	30 - 130 %
% Terphenyl-d14	74		%	1	11/20/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
November 22, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 22, 2017

QA/QC Data

SDG I.D.: GBZ40748

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 409551 (ug/kg), QC Sample No: BZ40157 10X (BZ40748)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	130	48	50	4.1	55	58	5.3	30 - 130	30
Acenaphthene	ND	130	56	62	10.2	66	70	5.9	30 - 130	30
Acenaphthylene	ND	130	53	59	10.7	61	67	9.4	30 - 130	30
Anthracene	ND	130	56	60	6.9	65	68	4.5	30 - 130	30
Benz(a)anthracene	ND	130	49	53	7.8	57	60	5.1	30 - 130	30
Benzo(a)pyrene	ND	130	49	53	7.8	60	62	3.3	30 - 130	30
Benzo(b)fluoranthene	ND	130	47	51	8.2	55	59	7.0	30 - 130	30
Benzo(ghi)perylene	ND	130	46	51	10.3	54	59	8.8	30 - 130	30
Benzo(k)fluoranthene	ND	130	57	63	10.0	68	70	2.9	30 - 130	30
Chrysene	ND	130	50	56	11.3	60	63	4.9	30 - 130	30
Dibenz(a,h)anthracene	ND	130	49	53	7.8	55	60	8.7	30 - 130	30
Fluoranthene	ND	130	52	56	7.4	62	65	4.7	30 - 130	30
Fluorene	ND	130	56	60	6.9	65	69	6.0	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	130	46	49	6.3	51	55	7.5	30 - 130	30
Naphthalene	ND	130	48	53	9.9	55	58	5.3	30 - 130	30
Phenanthrene	ND	130	50	54	7.7	59	62	5.0	30 - 130	30
Pyrene	ND	130	53	57	7.3	59	63	6.6	30 - 130	30
% 2-Fluorobiphenyl	52	%	52	59	12.6	59	67	12.7	30 - 130	30
% Nitrobenzene-d5	48	%	53	58	9.0	62	69	10.7	30 - 130	30
% Terphenyl-d14	59	%	53	59	10.7	63	67	6.2	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 410104 (ug/L), QC Sample No: BZ42103 (BZ40748)										
Semivolatiles by SIM										
2-Methylnaphthalene	ND	0.05	74	75	1.3	69			30 - 130	20
Acenaphthene	ND	0.05	65	65	0.0	59			30 - 130	20
Acenaphthylene	ND	0.04	67	68	1.5	61			30 - 130	20
Anthracene	ND	0.02	71	71	0.0	66			30 - 130	20
Benz(a)anthracene	ND	0.02	74	76	2.7	68			30 - 130	20
Benzo(a)pyrene	ND	0.02	67	69	2.9	56			30 - 130	20
Benzo(b)fluoranthene	ND	0.02	76	76	0.0	68			30 - 130	20
Benzo(ghi)perylene	ND	0.02	63	65	3.1	51			30 - 130	20
Benzo(k)fluoranthene	ND	0.02	72	74	2.7	63			30 - 130	20
Chrysene	ND	0.02	66	68	3.0	59			30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	77	80	3.8	62			30 - 130	20
Fluoranthene	ND	0.04	71	72	1.4	75			30 - 130	20
Fluorene	ND	0.05	68	68	0.0	64			30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	70	74	5.6	57			30 - 130	20
Naphthalene	ND	0.05	50	51	2.0	44			30 - 130	20
Phenanthrene	ND	0.05	66	66	0.0	64			30 - 130	20

QA/QC Data

SDG I.D.: GBZ40748

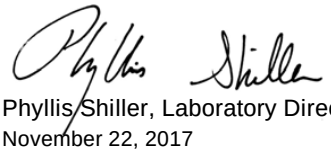
Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Pyrene	ND	0.02	72	73	1.4	77			30 - 130	20
% 2-Fluorobiphenyl	54	%	60	58	3.4	53			30 - 130	20
% Nitrobenzene-d5	58	%	52	57	9.2	47			30 - 130	20
% Terphenyl-d14	74	%	81	79	2.5	80			30 - 130	20

Comment:

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 22, 2017

Wednesday, November 22, 2017

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GBZ40748 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ40748	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2900	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4600	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5000	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5800	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2900	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	1300	1000	1000	ug/Kg
BZ40748	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	6100	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2800	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4500	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4600	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	5000	2700	1000	1000	ug/Kg
BZ40748	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	5800	2700	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

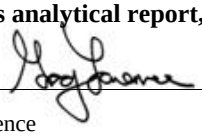
Laboratory Sample ID(s): BZ40748 ***Sampling Date(s):*** 11/13/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 8270

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 CTDEP Reasonable Confidence Protocol documents achieved?**	☑ Yes ☐ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, November 22, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 22, 2017

SDG I.D.: GBZ40748

SDG Comments

8270 Semi-volatile Organics:
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody. Due to the concentration of target analytes not all of the requested criteria could be achieved.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM19 11/15/17-2 Damien Drobinski, Chemist 11/15/17

BZ40748

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_1108):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1115_14-SPLIT_1108):
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 409551 (BZ40157)

BZ40748

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 410104 (BZ42103)

BZ40748

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: 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%)

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

November 22, 2017

SDG I.D.: GBZ40748

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM04 11/20/17-2 Damien Drobinski, Chemist 11/20/17

BZ40748

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

Initial Calibration Verification (CHEM04/SIM_1113):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 23% (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 (CHEM04/1120_14-SIM_1113):
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 409551 (BZ40157)

BZ40748

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 410104 (BZ42103)

BZ40748

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)
Additional 8270 criteria: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%)

Temperature 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

November 22, 2017

SDG I.D.: GBZ40748

The samples were received at 1.0C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐

CHAIN OF CUSTODY RECORD

Temp 1.0 °C Pg 1 of 1

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:
☐ Fax #:
☒ Email: emiley@tylerbend.com

Customer: Tyler + Bend
Address: 213 Court St
Middletown CT

Project: Riverside MGP
Report to: Lynn Miley
Invoice to: Tyler + Bend
Phone #:
Fax #:

Project P.O: 14-0755014

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/13/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PAH	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (9) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
40748	B-25 0.5-0.75	S	11/7/17	13:40	X		1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Graladine	11/13/17	1739

Comments, Special Requirements or Regulations:
Auth B025178A
RUSH pricing

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 Excel

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 748 of 1005

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, November 16, 2017 1:53 PM
To: Client Services
Subject: RE: Phoenix Labs - GBZ40748, ROCKVILLE MGP - Report Ready
Attachments: SKMBT_C65417111613330.pdf

Hi Sarah:

Thank you for sending this sample over so quickly. Looking at the results, the PAHs are fairly high.

Please complete SPLP PAHs.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Thursday, November 16, 2017 12:36 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ40748, ROCKVILLE MGP - Report Ready

Delivery group GBZ40748 (ROCKVILLE MGP) for the following samples:

BZ40748 - B-25 0.5-0.75

is available for review. Please click the following link to view report data.

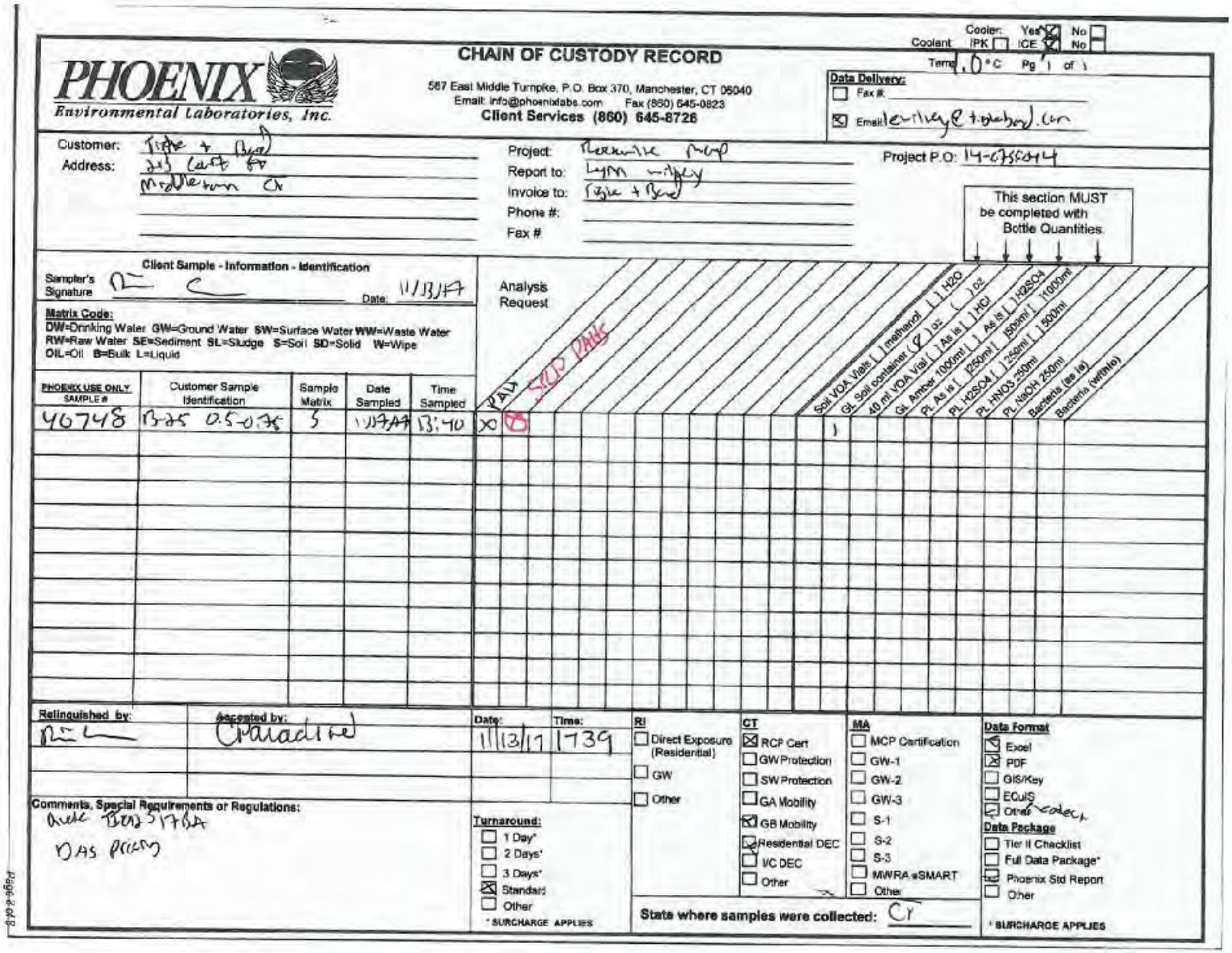
www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.
cc 'd:lewilley@tighebond.com



PHOENIX *Environmental Laboratories, Inc.*

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Cooler: Yes ☒ No ☐ Coolant: IPK ☐ ICE ☒ No ☐
Temp 1.0 °C Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: emiley@tylerbond.com

Customer: Tyler + Bond
Address: 213 Court St
Middletown CT

Project: Riverside Prop
Report to: Layla Miley
Invoice to: Tyler + Bond
Phone #:
Fax #:

Project P.O: 14-0750414

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/13/17

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request

PAH SVOC PAHS

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soil VOA Vials [ ] methanol [ ] H2O	Gl. Soil container ( ) oz	40 ml VOA Vial [ ] HCl	Gl. Amber 1000ml [ ] As is [ ] HCl	PL As is [ ] 250ml [ ] As is [ ] H2SO4	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
46748	B25 0.5-0.75	S	11/13/17	13:40	X	8								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Received	11/13/17	1739

Comments, Special Requirements or Regulations:
Include B25 17 PAH
DAS Pricing

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

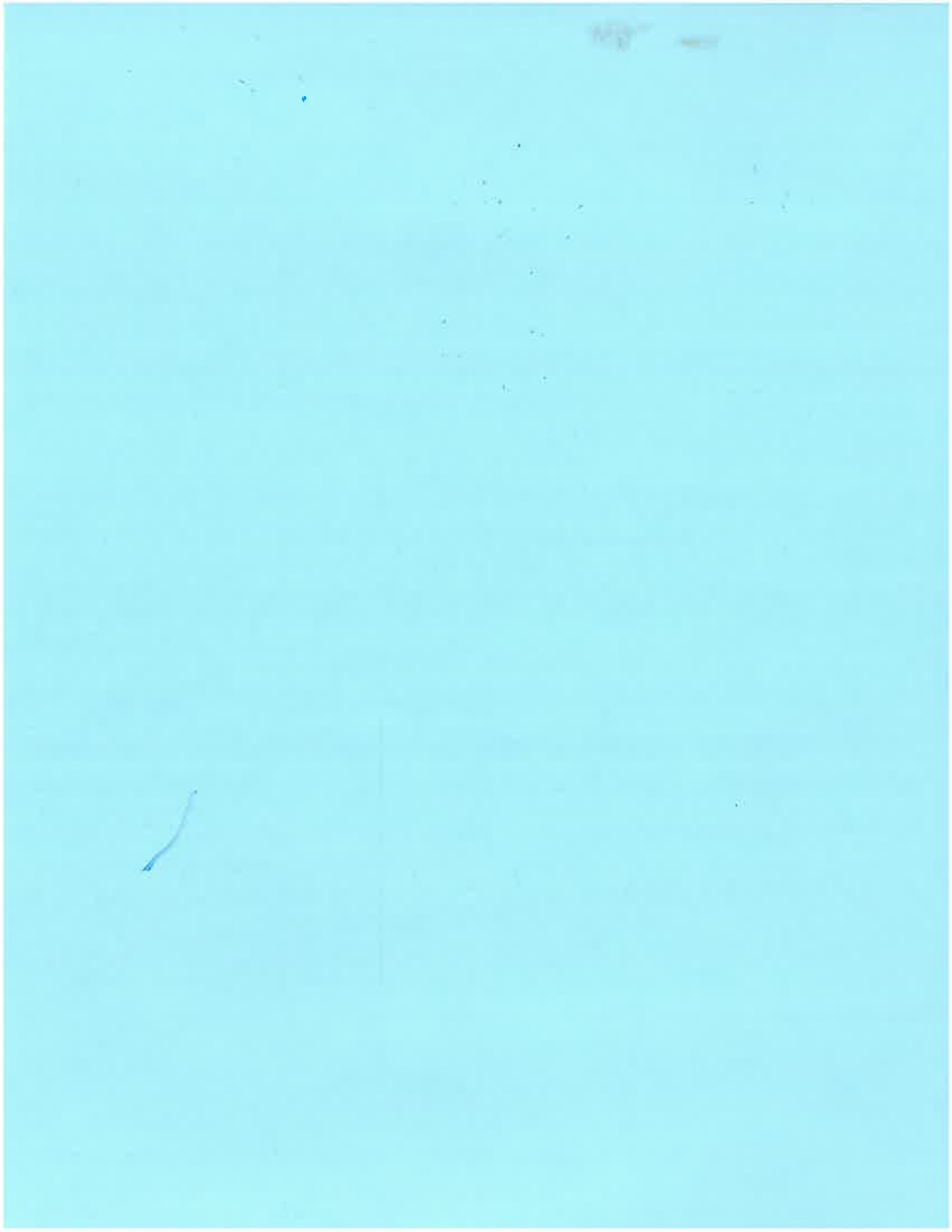
MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other excel

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

Page 2 of 2



PHOENIX
Environmental Laboratories, Inc.

Monday, November 20, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ39261 - BZ39272

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX
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

SDG Comments

November 20, 2017

SDG I.D.: GBZ39261

Volatile 8260 analysis:
The reporting level for Acrylonitrile is above the GWP criteria.
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, this compound is analyzed by GC/ECD to achieve this criteria.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	9:10
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39261

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/11/17	MA	SW6010C
Barium	0.176	0.002	mg/L	1	11/11/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Chromium	0.010	0.001	mg/L	1	11/11/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	11/11/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/11/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/11/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.007	0.002	mg/L	1	11/11/17	MA	SW6010C
Zinc	0.007	0.002	mg/L	1	11/11/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/10/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: BZ39261

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	1.1	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	8.1	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: BZ39261

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	89		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.9	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: BZ39261

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.99	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	74		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	52		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	72		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.99	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	0.92	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	0.08	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	0.06	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.07	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	0.06	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	0.34	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	0.24	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: BZ39261

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.79	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	0.09	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	0.49	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	110		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	54		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	74		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	65		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	73		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	10:35
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39262

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/11/17	MA	SW6010C
Barium	0.082	0.002	mg/L	1	11/11/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Chromium	0.026	0.001	mg/L	1	11/11/17	MA	SW6010C
Copper	0.007	0.005	mg/L	1	11/11/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.003	0.001	mg/L	1	11/11/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/11/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/11/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.007	0.002	mg/L	1	11/11/17	MA	SW6010C
Zinc	0.010	0.002	mg/L	1	11/11/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/10/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.53	0.067	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: BZ39262

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	8.4	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	3.1	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	1.8	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	3.0	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	33	20	ug/L	20	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	18	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	0.58	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	22	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	2.0	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: BZ39262

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	16	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	44	20	ug/L	20	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	11	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	3.7	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	27.0	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	104		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2-Methylnaphthalene	28	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.7	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: BZ39262

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
Acenaphthylene	21	4.8	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Naphthalene	130	48	ug/L	10	11/18/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.97	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	100		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	44		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	68		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	51		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	84		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	8.4	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	1.7	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	0.06	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	0.05	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	0.83	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	0.82	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: BZ39262

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	7.0	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	5.4	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	0.96	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	105		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	74		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	79		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C24. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	9:51
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39263

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/11/17	MA	SW6010C
Barium	0.144	0.002	mg/L	1	11/11/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Chromium	0.144	0.001	mg/L	1	11/11/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/11/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/11/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.010	0.002	mg/L	1	11/11/17	MA	SW6010C
Zinc	0.042	0.002	mg/L	1	11/11/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/10/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.078	0.066	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: BZ39263

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	0.88	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	15	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: BZ39263

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	2.0	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: BZ39263

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	78		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	30		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	50		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	45		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	54		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	0.09	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	0.26	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	0.09	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	0.14	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: BZ39263

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	1.1	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	0.32	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	0.11	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	100		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	57		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	55		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	64		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C24. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	13:00
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39264

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/11/17	MA	SW6010C
Barium	0.135	0.002	mg/L	1	11/11/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Chromium	0.096	0.001	mg/L	1	11/11/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/11/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/11/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/11/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/11/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.004	0.002	mg/L	1	11/11/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/11/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/10/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.084	0.068	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: BZ39264

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	1.2	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	7.8	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	1.3	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: BZ39264

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	1.1	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	19	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	1.1	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	103		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	106		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: BZ39264

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	55		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	78		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	3.1	0.98	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	1.3	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	1.6	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	0.35	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	0.11	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	0.29	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	0.98	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: BZ39264

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	8.7	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	2.0	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	0.37	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	74		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	61		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	80		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C24. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	12:36
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39265

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.091	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	0.013	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	0.014	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.006	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	0.010	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: BZ39265

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	3.5	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: BZ39265

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	102		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D

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Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: BZ39265

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.95	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	75		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	45		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	73		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	57		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	78		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.95	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: BZ39265

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.76	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	106		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	64		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	84		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	72		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	79		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	14:55
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39266

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.074	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	0.003	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.069	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Phoenix I.D.: BZ39266

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.98	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	32		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	46		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	77		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.98	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	102		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	59		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	67		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	55		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	82		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	15:01
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39267

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.243	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	0.144	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	0.006	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.729	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	0.013	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/13/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	60		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: BZ39267

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: BZ39267

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	102		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: BZ39267

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	46		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	74		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: BZ39267

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	103		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	52		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	75		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	58		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	78		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	16:41
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39268

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.168	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	0.364	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	0.013	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.084	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	0.004	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	0.004	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	0.016	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	58		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: BZ39268

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	1.1	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	2.5	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	1.1	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: BZ39268

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	1.1	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	5.0	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/16/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/16/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: BZ39268

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/16/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/16/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/16/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	34		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	60		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	32		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	63		%	1	11/16/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	0.39	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.06	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	0.47	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	0.06	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.01	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	0.13	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: BZ39268

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	0.11	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	0.15	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	99		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	68		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	43		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	76		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	16:25
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39269

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.216	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	0.002	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	0.003	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	11/17/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/17/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	62		%	1	11/17/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: BZ39269

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/15/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/15/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/15/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/15/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: BZ39269

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/15/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/15/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/15/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/15/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/15/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/15/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/15/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/15/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: BZ39269

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	44		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	66		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	53		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	78		%	1	11/15/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: BZ39269

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	64		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	51		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	80		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	14:56
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39270

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	0.074	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: BZ39270

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/14/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/14/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/14/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: BZ39270

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/14/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/14/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/14/17	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	11/14/17	MH	70 - 130 %
% Toluene-d8	98		%	1	11/14/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: BZ39270

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
4-Nitrophenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/15/17	DD	SW8270D
Phenol	ND	0.98	ug/L	1	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	80		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	80		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	83		%	1	11/15/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.98	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: BZ39270

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	64		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	76		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	84		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	11:05
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39271

Project ID: ROCKVILLE MGP
Client ID: E.O. BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/13/17	MA	SW6010C
Barium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/13/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/13/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/13/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/13/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/13/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/15/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	WQ/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/17	P/I	SW3520C
Total Metals Digestion	Completed				11/11/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/16/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/16/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	11/16/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: E.O. BLANK

Phoenix I.D.: BZ39271

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/14/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/14/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/14/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: E.O. BLANK

Phoenix I.D.: BZ39271

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Methyl ethyl ketone	ND		5.0	ug/L	1	11/14/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Methylene chloride	2.8	S	1.0	ug/L	1	11/14/17	MH	SW8260C
Naphthalene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
n-Butylbenzene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
n-Propylbenzene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
o-Xylene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
p-Isopropyltoluene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
sec-Butylbenzene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Styrene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
tert-Butylbenzene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrachloroethene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrahydrofuran (THF)	ND		2.5	ug/L	1	11/14/17	MH	SW8260C
Toluene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Total Xylenes	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,2-Dichloroethene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	ug/L	1	11/14/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		5.0	ug/L	1	11/14/17	MH	SW8260C
Trichloroethene	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorofluoromethane	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
Vinyl chloride	ND		1.0	ug/L	1	11/14/17	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101			%	1	11/14/17	MH	70 - 130 %
% Bromofluorobenzene	97			%	1	11/14/17	MH	70 - 130 %
% Dibromofluoromethane	100			%	1	11/14/17	MH	70 - 130 %
% Toluene-d8	99			%	1	11/14/17	MH	70 - 130 %
Semivolatiles								
1,2,4-Trichlorobenzene	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND		2.3	ug/L	1	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
1,3-Dichlorobenzene	ND		2.3	ug/L	1	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND		2.3	ug/L	1	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
2-Chlorophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
2-Nitroaniline	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
2-Nitrophenol	ND		0.94	ug/L	1	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND		9.4	ug/L	1	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND		4.7	ug/L	1	11/15/17	DD	SW8270D
3-Nitroaniline	ND		4.7	ug/L	1	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: E.O. BLANK

Phoenix I.D.: BZ39271

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/15/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	45		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	81		%	1	11/15/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/15/17	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/15/17	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: E.O. BLANK

Phoenix I.D.: BZ39271

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	11/15/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/15/17	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/15/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	11/15/17	DD	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	11/15/17	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	45		%	1	11/15/17	DD	15 - 110 %
% Terphenyl-d14	81		%	1	11/15/17	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.
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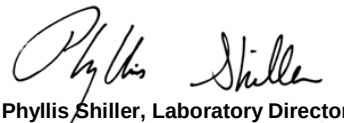

Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/09/17	
Location Code:	TIGHE-DAS	Received by:	B	11/09/17	18:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-074				

Laboratory Data

SDG ID: GBZ39261
Phoenix ID: BZ39272

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/14/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ39272

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	11/14/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/14/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/14/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/14/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/14/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/14/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/14/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/14/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/14/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/14/17	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ39272

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	104		%	1	11/14/17	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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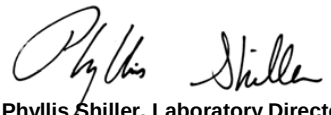

Phyllis Shiller, Laboratory Director
November 20, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

November 20, 2017

QA/QC Data

SDG I.D.: GBZ39261

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 409191 (mg/L), QC Sample No: BZ37415 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271)													
Thallium - Water	BRL	0.001	<0.001	<0.001	NC	109			93.7			75 - 125	20
QA/QC Batch 409098 (mg/L), QC Sample No: BZ38199 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	85.8			89.3			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 409194 (mg/L), QC Sample No: BZ38763 (BZ39261, BZ39262, BZ39263, BZ39264)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	98.5			96.5			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	97.8			94.8			75 - 125	20
Barium	BRL	0.002	0.121	0.117	3.40	101			99.4			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.5			98.8			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	101			95.4			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	101			95.9			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	99.4			97.5			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	100			95.2			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	102			96.9			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	94.9			91.6			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	94.6			92.2			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	99.4			97.3			75 - 125	20
Zinc	BRL	0.002	0.004	0.002	NC	99.0			95.5			75 - 125	20
QA/QC Batch 409284 (mg/L), QC Sample No: BZ39300 (BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	91.4			91.7			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	89.6			90.1			75 - 125	20
Barium	BRL	0.002	0.061	0.060	1.70	99.6			98.8			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	93.2			93.7			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	90.5			87.9			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	93.9			92.4			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	98.2			96.4			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	90.8			88.9			75 - 125	20
Nickel	BRL	0.001	0.002	0.002	NC	94.1			91.9			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	86.3			85.9			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	92.1			90.7			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	94.7			93.9			75 - 125	20
Zinc	BRL	0.002	<0.002	<0.002	NC	89.4			88.5			75 - 125	20

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QA/QC Report

November 20, 2017

QA/QC Data

SDG I.D.: GBZ39261

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 409223 (mg/L), QC Sample No: BZ38199 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	101			100			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 409425 (mg/L), QC Sample No: BZ39271 (BZ39268, BZ39269, BZ39270, BZ39271)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	99.5			101			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

November 20, 2017

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409397 (ug/L), QC Sample No: BZ38664 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271)											
Semivolatiles (SIM) - Ground Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	75	76	1.3				30 - 130	20	
2-Methylnaphthalene	ND	0.02	69	69	0.0				30 - 130	20	
Acenaphthene	ND	0.02	75	76	1.3				30 - 130	20	
Acenaphthylene	ND	0.02	80	71	11.9				30 - 130	20	
Anthracene	ND	0.02	78	78	0.0				30 - 130	20	
Benz(a)anthracene	ND	0.02	78	78	0.0				30 - 130	20	
Benzo(a)pyrene	ND	0.02	69	66	4.4				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	77	74	4.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	76	77	1.3				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	76	79	3.9				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.30	77	76	1.3				30 - 130	20	
Chrysene	ND	0.02	75	75	0.0				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	86	94	8.9				30 - 130	20	
Dibenzofuran	ND	0.05	71	71	0.0				30 - 130	20	
Fluoranthene	ND	0.02	77	79	2.6				30 - 130	20	
Fluorene	ND	0.02	77	78	1.3				30 - 130	20	
Hexachlorobenzene	ND	0.02	80	82	2.5				30 - 130	20	
Hexachlorobutadiene	ND	0.05	67	68	1.5				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	52	56	7.4				30 - 130	20	
Hexachloroethane	ND	0.06	66	64	3.1				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	80	85	6.1				30 - 130	20	
Naphthalene	ND	0.10	66	68	3.0				30 - 130	20	
Nitrobenzene	ND	0.05	76	81	6.4				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	92	95	3.2				30 - 130	20	
Pentachlorophenol	ND	0.20	111	107	3.7				30 - 130	20	
Phenanthrene	ND	0.02	74	75	1.3				30 - 130	20	
Pyrene	ND	0.02	79	79	0.0				30 - 130	20	
Pyridine	ND	0.50	66	30	75.0				30 - 130	20	r
% 2,4,6-Tribromophenol	90	%	100	99	1.0				15 - 110	20	
% 2-Fluorobiphenyl	68	%	69	71	2.9				30 - 130	20	
% 2-Fluorophenol	62	%	51	41	21.7				15 - 110	20	r
% Nitrobenzene-d5	81	%	75	73	2.7				30 - 130	20	
% Phenol-d5	65	%	56	39	35.8				15 - 110	20	r
% Terphenyl-d14	81	%	81	85	4.8				30 - 130	20	

Comment:

LCSD not reported for this batch.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409397 (ug/L), QC Sample No: BZ38664 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271)											
Semivolatiles - Ground Water											
1,2,4-Trichlorobenzene	ND	3.5	72	84	15.4				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	75	75	0.0				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	98	70	33.3				30 - 130	20	r
1,3-Dichlorobenzene	ND	1.0	73	74	1.4				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	73	74	1.4				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	85	83	2.4				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	81	81	0.0				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	76	84	10.0				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	81	93	13.8				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	91	89	2.2				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	93	98	5.2				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	90	93	3.3				30 - 130	20	
2-Chloronaphthalene	ND	3.5	82	85	3.6				30 - 130	20	
2-Chlorophenol	ND	1.0	69	65	6.0				30 - 130	20	
2-Methylnaphthalene	ND	3.5	75	87	14.8				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	71	65	8.8				30 - 130	20	
2-Nitroaniline	ND	3.5	130	98	28.1				30 - 130	20	r
2-Nitrophenol	ND	1.0	82	95	14.7				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	80	68	16.2				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	89	<10	NC				30 - 130	20	l
3-Nitroaniline	ND	5.0	106	59	57.0				30 - 130	20	r
4,6-Dinitro-2-methylphenol	ND	1.0	90	91	1.1				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	84	82	2.4				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	87	95	8.8				30 - 130	20	
4-Chloroaniline	ND	3.5	86	18	130.8				30 - 130	20	l,r
4-Chlorophenyl phenyl ether	ND	1.0	86	86	0.0				30 - 130	20	
4-Nitroaniline	ND	5.0	92	93	1.1				30 - 130	20	
4-Nitrophenol	ND	1.0	90	73	20.9				15 - 130	20	r
Acenaphthylene	ND	3.5	83	75	10.1				30 - 130	20	
Acetophenone	ND	3.5	82	79	3.7				30 - 130	20	
Aniline	ND	3.5	77	10	154.0				30 - 130	20	l,r
Benzidine	ND	4.5	133	<10	NC				30 - 130	20	l
Benzoic acid	ND	10	55	46	17.8				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	99	81	20.0				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	82	37	75.6				30 - 130	20	r
Bis(2-chloroethyl)ether	ND	1.0	65	65	0.0				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	70	68	2.9				30 - 130	20	
Carbazole	ND	5.0	91	47	63.8				30 - 130	20	r
Diethyl phthalate	ND	1.5	91	93	2.2				30 - 130	20	
Dimethylphthalate	ND	1.5	87	89	2.3				30 - 130	20	
Di-n-butylphthalate	ND	1.5	96	95	1.0				30 - 130	20	
Di-n-octylphthalate	ND	1.5	110	105	4.7				30 - 130	20	
Isophorone	ND	3.5	78	87	10.9				30 - 130	20	
Naphthalene	ND	1.5	75	87	14.8				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	64	58	9.8				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	85	84	1.2				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	83	27	101.8				30 - 130	20	l,r
Phenol	ND	1.0	63	47	29.1				15 - 130	20	r
% 2,4,6-Tribromophenol	86	%	96	94	2.1				15 - 110	20	

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% 2-Fluorobiphenyl	77	%	84	87	3.5				30 - 130	20	
% 2-Fluorophenol	58	%	54	48	11.8				15 - 110	20	
% Nitrobenzene-d5	76	%	81	80	1.2				30 - 130	20	
% Phenol-d5	60	%	62	45	31.8				15 - 110	20	r
% Terphenyl-d14	82	%	90	91	1.1				30 - 130	20	

Comment:

LCSD not reported for this batch.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 409751 (mg/L), QC Sample No: BZ39261 (BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39270, BZ39271)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	78	73	6.6				60 - 120	30	
% n-Pentacosane	70	%	73	65	11.6				50 - 150	20	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 409741 (ug/L), QC Sample No: BZ39270 (BZ39270, BZ39271)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	102	106	3.8				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	97	95	2.1				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	98	105	6.9				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	92	93	1.1				70 - 130	30	
1,1-Dichloroethane	ND	1.0	95	93	2.1				70 - 130	30	
1,1-Dichloroethene	ND	1.0	95	93	2.1				70 - 130	30	
1,1-Dichloropropene	ND	1.0	98	97	1.0				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	98	105	6.9				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	97	99	2.0				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	94	98	4.2				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	92	94	2.2				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	111	121	8.6				70 - 130	30	
1,2-Dibromoethane	ND	1.0	93	97	4.2				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	91	94	3.2				70 - 130	30	
1,2-Dichloroethane	ND	1.0	95	92	3.2				70 - 130	30	
1,2-Dichloropropane	ND	1.0	89	88	1.1				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	95	97	2.1				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	94	96	2.1				70 - 130	30	
1,3-Dichloropropane	ND	1.0	92	95	3.2				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	92	93	1.1				70 - 130	30	
2,2-Dichloropropane	ND	1.0	105	101	3.9				70 - 130	30	
2-Chlorotoluene	ND	1.0	97	97	0.0				70 - 130	30	
2-Hexanone	ND	5.0	93	98	5.2				70 - 130	30	
2-Isopropyltoluene	ND	1.0	95	96	1.0				70 - 130	30	
4-Chlorotoluene	ND	1.0	93	93	0.0				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	96	99	3.1				70 - 130	30	
Acetone	ND	5.0	89	89	0.0				70 - 130	30	
Acrylonitrile	ND	5.0	95	91	4.3				70 - 130	30	
Benzene	ND	0.70	93	93	0.0				70 - 130	30	
Bromobenzene	ND	1.0	93	94	1.1				70 - 130	30	
Bromochloromethane	ND	1.0	96	95	1.0				70 - 130	30	
Bromodichloromethane	ND	0.50	100	97	3.0				70 - 130	30	

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bromoform	ND	1.0	111	115	3.5				70 - 130	30
Bromomethane	ND	1.0	100	100	0.0				70 - 130	30
Carbon Disulfide	ND	1.0	100	100	0.0				70 - 130	30
Carbon tetrachloride	ND	1.0	103	103	0.0				70 - 130	30
Chlorobenzene	ND	1.0	92	93	1.1				70 - 130	30
Chloroethane	ND	1.0	104	102	1.9				70 - 130	30
Chloroform	ND	1.0	96	95	1.0				70 - 130	30
Chloromethane	ND	1.0	95	92	3.2				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	93	86	7.8				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	95	95	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	110	115	4.4				70 - 130	30
Dibromomethane	ND	1.0	91	92	1.1				70 - 130	30
Dichlorodifluoromethane	ND	1.0	100	95	5.1				70 - 130	30
Ethylbenzene	ND	1.0	91	94	3.2				70 - 130	30
Hexachlorobutadiene	ND	0.40	100	101	1.0				70 - 130	30
Isopropylbenzene	ND	1.0	93	95	2.1				70 - 130	30
m&p-Xylene	ND	1.0	94	94	0.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	102	102	0.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	88	90	2.2				70 - 130	30
Methylene chloride	ND	1.0	90	89	1.1				70 - 130	30
Naphthalene	ND	1.0	100	107	6.8				70 - 130	30
n-Butylbenzene	ND	1.0	98	98	0.0				70 - 130	30
n-Propylbenzene	ND	1.0	92	93	1.1				70 - 130	30
o-Xylene	ND	1.0	93	93	0.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	98	99	1.0				70 - 130	30
sec-Butylbenzene	ND	1.0	100	101	1.0				70 - 130	30
Styrene	ND	1.0	92	93	1.1				70 - 130	30
tert-Butylbenzene	ND	1.0	95	95	0.0				70 - 130	30
Tetrachloroethene	ND	1.0	96	94	2.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	88	89	1.1				70 - 130	30
Toluene	ND	1.0	94	92	2.2				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	91	88	3.4				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	94	96	2.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	110	114	3.6				70 - 130	30
Trichloroethene	ND	1.0	93	93	0.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	102	100	2.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	98	97	1.0				70 - 130	30
Vinyl chloride	ND	1.0	96	93	3.2				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	102	2.0				70 - 130	30
% Bromofluorobenzene	96	%	98	99	1.0				70 - 130	30
% Dibromofluoromethane	98	%	105	99	5.9				70 - 130	30
% Toluene-d8	98	%	100	100	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 409746 (ug/L), QC Sample No: BZ39272 (BZ39261, BZ39262 (20X) , BZ39263, BZ39266, BZ39267, BZ39268, BZ39269, BZ39272)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	90	97	7.5				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	93	99	6.3				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	95	104	9.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	94	102	8.2				70 - 130	30

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1-Dichloroethane	ND	1.0	95	100	5.1				70 - 130	30
1,1-Dichloroethene	ND	1.0	100	104	3.9				70 - 130	30
1,1-Dichloropropene	ND	1.0	97	102	5.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	100	112	11.3				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	91	98	7.4				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	92	100	8.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	88	91	3.4				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	97	113	15.2				70 - 130	30
1,2-Dibromoethane	ND	1.0	93	99	6.3				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	89	96	7.6				70 - 130	30
1,2-Dichloroethane	ND	1.0	95	101	6.1				70 - 130	30
1,2-Dichloropropane	ND	1.0	94	100	6.2				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	90	94	4.3				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	89	96	7.6				70 - 130	30
1,3-Dichloropropane	ND	1.0	93	99	6.3				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	89	95	6.5				70 - 130	30
2,2-Dichloropropane	ND	1.0	92	96	4.3				70 - 130	30
2-Chlorotoluene	ND	1.0	89	93	4.4				70 - 130	30
2-Hexanone	ND	5.0	92	100	8.3				70 - 130	30
2-Isopropyltoluene	ND	1.0	90	93	3.3				70 - 130	30
4-Chlorotoluene	ND	1.0	89	92	3.3				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	92	102	10.3				70 - 130	30
Acetone	ND	5.0	95	99	4.1				70 - 130	30
Acrylonitrile	ND	5.0	101	117	14.7				70 - 130	30
Benzene	ND	0.70	92	97	5.3				70 - 130	30
Bromobenzene	ND	1.0	89	96	7.6				70 - 130	30
Bromochloromethane	ND	1.0	94	102	8.2				70 - 130	30
Bromodichloromethane	ND	0.50	92	98	6.3				70 - 130	30
Bromoform	ND	1.0	85	94	10.1				70 - 130	30
Bromomethane	ND	1.0	126	131	3.9				70 - 130	30
Carbon Disulfide	ND	1.0	101	106	4.8				70 - 130	30
Carbon tetrachloride	ND	1.0	91	100	9.4				70 - 130	30
Chlorobenzene	ND	1.0	91	96	5.3				70 - 130	30
Chloroethane	ND	1.0	108	112	3.6				70 - 130	30
Chloroform	ND	1.0	92	98	6.3				70 - 130	30
Chloromethane	ND	1.0	103	109	5.7				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	95	98	3.1				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	93	100	7.3				70 - 130	30
Dibromochloromethane	ND	0.50	92	100	8.3				70 - 130	30
Dibromomethane	ND	1.0	94	101	7.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	120	132	9.5				70 - 130	30
Ethylbenzene	ND	1.0	92	95	3.2				70 - 130	30
Hexachlorobutadiene	ND	0.40	95	99	4.1				70 - 130	30
Isopropylbenzene	ND	1.0	91	94	3.2				70 - 130	30
m&p-Xylene	ND	1.0	96	99	3.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	99	110	10.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	98	11.9				70 - 130	30
Methylene chloride	ND	1.0	91	96	5.3				70 - 130	30
Naphthalene	ND	1.0	101	113	11.2				70 - 130	30
n-Butylbenzene	ND	1.0	91	92	1.1				70 - 130	30
n-Propylbenzene	ND	1.0	91	94	3.2				70 - 130	30
o-Xylene	ND	1.0	94	97	3.1				70 - 130	30
p-Isopropyltoluene	ND	1.0	92	94	2.2				70 - 130	30

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
sec-Butylbenzene	ND	1.0	97	100	3.0				70 - 130	30
Styrene	ND	1.0	92	97	5.3				70 - 130	30
tert-Butylbenzene	ND	1.0	91	95	4.3				70 - 130	30
Tetrachloroethene	ND	1.0	92	98	6.3				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	89	99	10.6				70 - 130	30
Toluene	ND	1.0	91	96	5.3				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	92	98	6.3				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	90	96	6.5				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	84	91	8.0				70 - 130	30
Trichloroethene	ND	1.0	93	97	4.2				70 - 130	30
Trichlorofluoromethane	ND	1.0	115	121	5.1				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	107	117	8.9				70 - 130	30
Vinyl chloride	ND	1.0	108	115	6.3				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	99	101	2.0				70 - 130	30
% Bromofluorobenzene	101	%	101	103	2.0				70 - 130	30
% Dibromofluoromethane	95	%	99	102	3.0				70 - 130	30
% Toluene-d8	104	%	102	101	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 409889 (ug/L), QC Sample No: BZ39461 (BZ39262, BZ39264, BZ39265)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	85	93	9.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	85	93	9.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	95	101	6.1				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	94	99	5.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	91	96	5.3				70 - 130	30
1,1-Dichloroethene	ND	1.0	93	100	7.3				70 - 130	30
1,1-Dichloropropene	ND	1.0	89	95	6.5				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	85	105	21.1				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	91	102	11.4				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	84	95	12.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	83	90	8.1				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	92	104	12.2				70 - 130	30
1,2-Dibromoethane	ND	1.0	91	98	7.4				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	87	94	7.7				70 - 130	30
1,2-Dichloroethane	ND	1.0	93	98	5.2				70 - 130	30
1,2-Dichloropropane	ND	1.0	91	98	7.4				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	84	91	8.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	85	92	7.9				70 - 130	30
1,3-Dichloropropane	ND	1.0	92	98	6.3				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	85	92	7.9				70 - 130	30
2,2-Dichloropropane	ND	1.0	86	93	7.8				70 - 130	30
2-Chlorotoluene	ND	1.0	84	90	6.9				70 - 130	30
2-Hexanone	ND	5.0	91	100	9.4				70 - 130	30
2-Isopropyltoluene	ND	1.0	83	91	9.2				70 - 130	30
4-Chlorotoluene	ND	1.0	83	90	8.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	94	98	4.2				70 - 130	30
Acetone	ND	5.0	91	99	8.4				70 - 130	30
Acrylonitrile	ND	5.0	102	111	8.5				70 - 130	30
Benzene	ND	0.70	88	94	6.6				70 - 130	30
Bromobenzene	ND	1.0	85	92	7.9				70 - 130	30

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bromochloromethane	ND	1.0	91	99	8.4				70 - 130	30
Bromodichloromethane	ND	0.50	89	94	5.5				70 - 130	30
Bromoform	ND	1.0	81	88	8.3				70 - 130	30
Bromomethane	ND	1.0	91	115	23.3				70 - 130	30
Carbon Disulfide	ND	1.0	95	102	7.1				70 - 130	30
Carbon tetrachloride	ND	1.0	81	90	10.5				70 - 130	30
Chlorobenzene	ND	1.0	86	94	8.9				70 - 130	30
Chloroethane	ND	1.0	104	109	4.7				70 - 130	30
Chloroform	ND	1.0	88	94	6.6				70 - 130	30
Chloromethane	ND	1.0	107	111	3.7				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	91	97	6.4				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	91	96	5.3				70 - 130	30
Dibromochloromethane	ND	0.50	87	96	9.8				70 - 130	30
Dibromomethane	ND	1.0	92	98	6.3				70 - 130	30
Dichlorodifluoromethane	ND	1.0	118	129	8.9				70 - 130	30
Ethylbenzene	ND	1.0	85	92	7.9				70 - 130	30
Hexachlorobutadiene	ND	0.40	79	92	15.2				70 - 130	30
Isopropylbenzene	ND	1.0	84	91	8.0				70 - 130	30
m&p-Xylene	ND	1.0	90	97	7.5				70 - 130	30
Methyl ethyl ketone	ND	5.0	100	107	6.8				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	88	95	7.7				70 - 130	30
Methylene chloride	ND	1.0	89	94	5.5				70 - 130	30
Naphthalene	ND	1.0	87	108	21.5				70 - 130	30
n-Butylbenzene	ND	1.0	83	89	7.0				70 - 130	30
n-Propylbenzene	ND	1.0	82	91	10.4				70 - 130	30
o-Xylene	ND	1.0	88	95	7.7				70 - 130	30
p-Isopropyltoluene	ND	1.0	85	90	5.7				70 - 130	30
sec-Butylbenzene	ND	1.0	88	95	7.7				70 - 130	30
Styrene	ND	1.0	87	95	8.8				70 - 130	30
tert-Butylbenzene	ND	1.0	84	90	6.9				70 - 130	30
Tetrachloroethene	ND	1.0	86	92	6.7				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	96	96	0.0				70 - 130	30
Toluene	ND	1.0	87	93	6.7				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	86	94	8.9				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	88	93	5.5				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	81	86	6.0				70 - 130	30
Trichloroethene	ND	1.0	87	93	6.7				70 - 130	30
Trichlorofluoromethane	ND	1.0	106	114	7.3				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	100	108	7.7				70 - 130	30
Vinyl chloride	ND	1.0	105	111	5.6				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	101	0.0				70 - 130	30
% Bromofluorobenzene	102	%	102	102	0.0				70 - 130	30
% Dibromofluoromethane	94	%	96	97	1.0				70 - 130	30
% Toluene-d8	104	%	102	101	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 409752 (mg/L), QC Sample No: BZ41190 (BZ39268, BZ39269)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	68						60 - 120	30
% n-Pentacosane	53	%	61						50 - 150	20

QA/QC Data

SDG I.D.: GBZ39261

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

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.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 20, 2017

Monday, November 20, 2017

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GBZ39261 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39261	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	1.1	0.50	1	1	ug/L
BZ39261	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39261	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39261	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39261	$8260GWR	Chloroform	CT / RSR GWPC (ug/l) / Volatiles	8.1	1.0	6	6	ug/L
BZ39261	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.07	0.05	0.06	0.06	ug/L
BZ39261	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.09	0.05	0.077	0.077	ug/L
BZ39262	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39262	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	3.0	0.50	1	1	ug/L
BZ39262	$8260GWR	Dibromochloromethane	CT / RSR GWPC (ug/l) / Volatiles	0.58	0.50	0.5	0.5	ug/L
BZ39262	$8260GWR	Chloroform	CT / RSR GWPC (ug/l) / Volatiles	18	1.0	6	6	ug/L
BZ39262	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	1.8	0.70	1	1	ug/L
BZ39262	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39262	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39262	$8260GWR	Bromodichloromethane	CT / RSR GWVC RES (ug/l) / APS Organics	3.0	0.50	1.1	1.1	ug/L
BZ39262	$8270-CTSIMF	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	21	4.8	0.3	0.3	ug/L
BZ39262	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	5.4	0.05	0.077	0.077	ug/L
BZ39262	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.83	0.05	0.077	0.077	ug/L
BZ39262	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.53	0.067	0.25	0.25	mg/L
BZ39262	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.53	0.067	0.5	0.5	mg/L
BZ39262	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.53	0.067	0.25	0.25	mg/L
BZ39263	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39263	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39263	$8260GWR	Chloroform	CT / RSR GWPC (ug/l) / Volatiles	15	1.0	6	6	ug/L
BZ39263	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39263	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.32	0.05	0.077	0.077	ug/L
BZ39263	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.144	0.001	0.05	0.05	mg/L
BZ39264	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39264	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	1.2	0.50	1	1	ug/L
BZ39264	$8260GWR	Chloroform	CT / RSR GWPC (ug/l) / Volatiles	7.8	1.0	6	6	ug/L
BZ39264	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39264	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39264	$8260GWR	Bromodichloromethane	CT / RSR GWVC RES (ug/l) / APS Organics	1.2	0.50	1.1	1.1	ug/L
BZ39264	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.11	0.05	0.077	0.077	ug/L
BZ39264	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	2.0	0.05	0.077	0.077	ug/L
BZ39264	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.6	0.05	0.3	0.3	ug/L
BZ39264	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.096	0.001	0.05	0.05	mg/L
BZ39265	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39265	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Monday, November 20, 2017

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GBZ39261 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39265	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39265	SB-WM	Antimony	CT / RSR GWPC (ug/l) / Inorganics	0.014	0.005	0.006	0.006	mg/L
BZ39266	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39266	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39266	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39267	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39267	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39267	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39267	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.144	0.001	0.05	0.05	mg/L
BZ39267	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.729	0.001	0.1	0.1	mg/L
BZ39268	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39268	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	2.5	0.70	1	1	ug/L
BZ39268	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39268	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39268	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.11	0.05	0.077	0.077	ug/L
BZ39268	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.364	0.001	0.05	0.05	mg/L
BZ39269	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39269	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39269	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39270	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39270	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39270	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39271	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39271	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39271	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39272	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39272	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39272	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

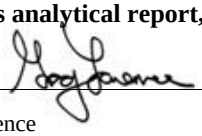
Laboratory Sample ID(s): BZ39261-BZ39272 ***Sampling Date(s):*** 11/9/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7000, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: SVOA Narration, SVOASIM Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Monday, November 20, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007
Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols

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

November 20, 2017

SDG I.D.: GBZ39261

SDG Comments

Volatile 8260 analysis:
The reporting level for Acrylonitrile is above the GWP criteria.
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet the GWP these compounds are analyzed by GC/ECD to achieve this criteria.

AA Metals (TL) Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

PE600-2 11/13/17 09:27 Rick Schweitzer, Chemist 11/13/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The CRDL met criteria.
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 samples did not meet analytical spike criteria: None.

QC (Batch Specific):

Batch 409191 (BZ37415)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/13/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/13/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

LACHAT 11/14/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/14/17

BZ39268, BZ39269, BZ39270, BZ39271

The samples were distilled in accordance with the method.
The initial calibration met criteria.

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

Cyanide Narration

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 409223 (BZ38199)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

QC (Site Specific):

Batch 409425 (BZ39271)

BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 90 - 110 with the following exceptions: None.
All MS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-XL1 11/16/17-1 Jeff Bucko, Chemist 11/16/17

BZ39268, BZ39269

The initial calibration (ETPHN03I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 11/16/17-1 Jeff Bucko, Chemist 11/16/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39270, BZ39271

The initial calibration (ETPHO23I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 409751 (BZ39261)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39270, BZ39271

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.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

ETPH Narration

Batch 409752 (BZ41190)

BZ39268, BZ39269

All LCS recoveries were within 60 - 120 with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/13/17 08:39 Rick Schweitzer, Chemist 11/13/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

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 409098 (BZ38199)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 11/11/17 17:30 Mike Arsenault, Chemist 11/11/17

BZ39261, BZ39262, BZ39263, BZ39264

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

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

November 20, 2017

SDG I.D.: GBZ39261

ICP Metals Narration

BLUE 11/13/17 06:56 Mike Arsenault, Chemist 11/13/17

BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 409194 (BZ38763)

BZ39261, BZ39262, BZ39263, BZ39264

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 409284 (BZ39300)

BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409397 (Samples: BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271): -----

The LCS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Benzidine)

Instrument:

CHEM19 11/15/17-2 Damien Drobinski, Chemist 11/15/17

BZ39269, BZ39270, BZ39271

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_1108):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.062 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/1115_14-SPLIT_1108):
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.

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

SVOA Narration

The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.065 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 11/16/17-1 Damien Drobinski, Chemist 11/16/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268

Initial Calibration Verification (CHEM27/SPLIT_1115):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Bis(2-chloroethoxy)methane 0.267 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/1116_02B-SPLIT_1115):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: N-Nitrosodimethylamine 35%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.096 (0.1), Bis(2-chloroethoxy)methane 0.238 (0.3)
The following compounds did not meet minimum response factors: None.

CHEM27 11/17/17-1 Damien Drobinski, Chemist 11/17/17

BZ39262

Initial Calibration Verification (CHEM27/SPLIT_1115):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/1117_04-SPLIT_1115):
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 409397 (BZ38664)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 30 - 130 with the following exceptions: Benzidine(133%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 3,3'-Dichlorobenzidine(<10%), 4-Chloroaniline(18%), Aniline(10%), Benzidine(<10%), N-Nitrosodiphenylamine(27%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % Phenol-d5(31.8%), 1,2-Diphenylhydrazine(33.3%), 2-Nitroaniline(28.1%), 3-Nitroaniline(57.0%), 4-Chloroaniline(130.8%), 4-Nitrophenol(20.9%), Aniline(154.0%), Bis(2-chloroethoxy)methane(75.6%), Carbazole(63.8%), N-Nitrosodiphenylamine(101.8%), Phenol(29.1%)
LCSD not reported for this batch.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

SVOA Narration

surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409397 (Samples: BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271): -----

A trace amount of an analyte was found in blank but was not reported in the sample(s), therefore no bias is suspected. (Hexachloroethane)

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (Naphthalene(BZ39262, BZ39263, BZ39264))

Analyte was found in blank. A high bias is suspected. (Bis(2-ethylhexyl)phthalate(BZ39268))

Instrument:

CHEM04 11/15/17-1 Damien Drobinski, Chemist 11/15/17

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

Initial Calibration Verification (CHEM04/SIM_1113):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 23% (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 (CHEM04/1115_02-SIM_1113):
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: Hexachloroethane 0.290 (0.3)
The following compounds did not meet minimum response factors: None.

CHEM07 11/15/17-1 Damien Drobinski, Chemist 11/15/17

BZ39269, BZ39270, BZ39271

Initial Calibration Verification (CHEM07/SIM_1025):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1115_02-SIM_1025):

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

SVOASIM Narration

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409397 (BZ38664)

BZ39261, BZ39262, BZ39263, BZ39264, BZ39265, BZ39266, BZ39267, BZ39268, BZ39269, BZ39270, BZ39271

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: % 2-Fluorophenol(21.7%), % Phenol-d5(35.8%), Pyridine(75.0%)
LCSD not reported for this batch.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409746 (Samples: BZ39261, BZ39262, BZ39263, BZ39266, BZ39267, BZ39268, BZ39269, BZ39272): -----

The LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Bromomethane, Dichlorodifluoromethane)

Instrument:

CHEM02 11/14/17-2 Michael Hahn, Chemist 11/14/17

BZ39261, BZ39262, BZ39263, BZ39266, BZ39267, BZ39268, BZ39269, BZ39272

Initial Calibration Verification (CHEM02/VT-P1112):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 37% (20%), Acrylonitrile 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.020 (0.05), 2-Hexanone 0.048 (0.1), 4-Methyl-2-pentanone 0.070 (0.1), Acetone 0.032 (0.1), Acrylonitrile 0.034 (0.05), Bromoform 0.080 (0.1), Methyl ethyl ketone 0.045 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1114P24-VT-P1112):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.218 (0.3), 1,2-Dibromo-3-chloropropane 0.020 (0.05), Acrylonitrile 0.035 (0.05), Bromoform 0.071 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM02 11/15/17-2 Michael Hahn, Chemist 11/15/17

BZ39262, BZ39264, BZ39265

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

VOA Narration

Initial Calibration Verification (CHEM02/VT-P1112):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 37% (20%), Acrylonitrile 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.020 (0.05), 2-Hexanone 0.048 (0.1), 4-Methyl-2-pentanone 0.070 (0.1), Acetone 0.032 (0.1), Acrylonitrile 0.034 (0.05), Bromoform 0.080 (0.1), Methyl ethyl ketone 0.045 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1115P21-VT-P1112):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.224 (0.3), 1,2-Dibromo-3-chloropropane 0.021 (0.05), Acrylonitrile 0.040 (0.05), Bromoform 0.077 (0.1), Tetrahydrofuran (THF) 0.035 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM23 11/14/17-1 Michael Hahn, Chemist 11/14/17

BZ39270, BZ39271

Initial Calibration Verification (CHEM23/VOA23_1114):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 29% (20%), Bromoform 29% (20%), Chloroethane 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM23/1114_11-VOA23_1114):
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 409741 (BZ39270)

BZ39270, BZ39271

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 409746 (BZ39272)

BZ39261, BZ39262, BZ39263, BZ39266, BZ39267, BZ39268, BZ39269, BZ39272

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(131%), Dichlorodifluoromethane(132%)

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RCP Certification Report

November 20, 2017

SDG I.D.: GBZ39261

VOA Narration

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 409889 (BZ39461)

BZ39262, BZ39264, BZ39265

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.3C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ No ☐
Temp 1.3 Pg 1 of

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:
☐ Fax #:
☑ Email: LEhnley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street
Suite 1100
Middletown CT

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/9/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	SVOCs	ETPH	RCRA metals	TCN	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [X] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml [ ]1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
39261	MW-7D	GW	11/9/17	9:10	X	X	X	X	X					3	3			1	1
39262	MW-19D			10:35	X	X	X	X	X					3	3			1	1
39263	MW-10BR			9:51	X	X	X	X	X					3	3			1	1
39264	MW-3BR			13:00	X	X	X	X	X					3	3			1	1
39265	MW-23S			12:36	X	X	X	X	X					3	3			1	1
39266	MW-14S			14:55	X	X	X	X	X					3	3			1	1
39267	MW-14S			15:05	X	X	X	X	X					3	3			1	1
39268	MW-14D			16:41	X	X	X	X	X					3	3			1	1
39269	MW-21S			16:25	X	X	X	X	X					3	3			1	1
39270	MW-04D			14:56	X	X	X	X	X					3	3			1	1
39271	EQ Blank		—	11:05	X	X	X	X	X					3	3			1	1
39272	Trip Blank	—	—	—	X									2					

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	11/9/17	18:20

Comments, Special Requirements or Regulations:
Quote: TIGH517JA
NJ AS Pricing

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 RCP VC

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 Report

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☑ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Monday, December 18, 2017

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ39893 - BZ39897

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

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PHOENIX
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SDG Comments

December 18, 2017

SDG I.D.: GBZ39893

Volatile 8260 analysis:
The reporting level for Acrylonitrile is above the GWP criteria.
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, this compound is analyzed by GC/ECD to achieve this criteria.

Version 2:
Sample BZ39895:
The surrogate recovery was slightly below acceptance criteria for the ETPH analysis. The sample was re-extracted outside of hold-time, with a better surrogate recovery. Both results are ND. The initial prep and analysis are reported. The passing surrogate is reported.

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Analysis Report

December 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/10/17	8:25
Location Code:	TIGHE-DAS	Received by:	SW	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ39893
Phoenix ID: BZ39893

Project ID: ROCKVILLE MGP
Client ID: MW-2BR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium	0.347	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium	0.010	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc	0.004	0.002	mg/L	1	11/14/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	W/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Total Metals Digestion	Completed				11/13/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	11/17/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/17/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	11/17/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-2BR

Phoenix I.D.: BZ39893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Project ID: ROCKVILLE MGP
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	106		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D

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Project ID: ROCKVILLE MGP
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
4-Chloroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
4-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Nitrophenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
Acetophenone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Aniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Benzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Benzoic acid	ND	48	ug/L	1	11/17/17	DD	SW8270D	
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Carbazole	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Diethyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Dimethylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Di-n-butylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Di-n-octylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Isophorone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodimethylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Phenol	ND	0.95	ug/L	1	11/17/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	83		%	1	11/17/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	65		%	1	11/17/17	DD	30 - 130 %	
% 2-Fluorophenol	35		%	1	11/17/17	DD	15 - 110 %	
% Nitrobenzene-d5	52		%	1	11/17/17	DD	30 - 130 %	
% Phenol-d5	45		%	1	11/17/17	DD	15 - 110 %	
% Terphenyl-d14	78		%	1	11/17/17	DD	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	
2-Methylnaphthalene	ND	0.95	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	0.06	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-2BR

Phoenix I.D.: BZ39893

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.76	ug/L	1	11/16/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyrene	0.08	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	40		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	57		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	50		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	88		%	1	11/16/17	DD	30 - 130 %

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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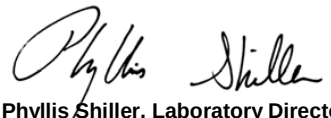

Phyllis Shiller, Laboratory Director
December 18, 2017
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/10/17	10:00
Location Code:	TIGHE-DAS	Received by:	SW	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ39893
Phoenix ID: BZ39894

Project ID: ROCKVILLE MGP
Client ID: MW-85R

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium	0.071	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium	0.004	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper	0.012	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead	0.003	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04
Vanadium	0.004	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc	0.008	0.002	mg/L	1	11/14/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	W/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Total Metals Digestion	Completed				11/13/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	11/17/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/17/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	11/17/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-85R

Phoenix I.D.: BZ39894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-85R

Phoenix I.D.: BZ39894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	107		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-85R

Phoenix I.D.: BZ39894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
4-Chloroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
4-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Nitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
Acetophenone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Aniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Benzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Benzoic acid	ND	49	ug/L	1	11/17/17	DD	SW8270D	
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Carbazole	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Diethyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Dimethylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Di-n-butylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Di-n-octylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Isophorone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Phenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	81		%	1	11/17/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	73		%	1	11/17/17	DD	30 - 130 %	
% 2-Fluorophenol	34		%	1	11/17/17	DD	15 - 110 %	
% Nitrobenzene-d5	58		%	1	11/17/17	DD	30 - 130 %	
% Phenol-d5	36		%	1	11/17/17	DD	15 - 110 %	
% Terphenyl-d14	72		%	1	11/17/17	DD	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
2-Methylnaphthalene	ND	0.98	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	0.22	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	0.10	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	0.41	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	0.86	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	0.57	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	0.74	0.20	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	0.56	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	0.49	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	0.10	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	0.38	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-85R

Phoenix I.D.: BZ39894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.64	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	11/16/17	DD	SW8270D (SIM)
Phenanthrene	0.09	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyrene	0.76	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	65		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	41		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	84		%	1	11/16/17	DD	30 - 130 %

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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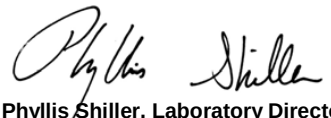

Phyllis Shiller, Laboratory Director
December 18, 2017
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/10/17	11:25
Location Code:	TIGHE-DAS	Received by:	SW	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ39893
Phoenix ID: BZ39895

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium	0.031	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead	0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	W/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Total Metals Digestion	Completed				11/13/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	11/22/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/22/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	11/22/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: BZ39895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: BZ39895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	6.4	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	106		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.7	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: BZ39895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Chloro-3-methylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
4-Chloroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Chlorophenyl phenyl ether	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
4-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
4-Nitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
Acetophenone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Aniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Benzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Benzoic acid	ND	49	ug/L	1	11/17/17	DD	SW8270D	
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethyl)ether	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Carbazole	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Diethyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Dimethylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Di-n-butylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Di-n-octylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Isophorone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D	
Phenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	84		%	1	11/17/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	63		%	1	11/17/17	DD	30 - 130 %	
% 2-Fluorophenol	34		%	1	11/17/17	DD	15 - 110 %	
% Nitrobenzene-d5	48		%	1	11/17/17	DD	30 - 130 %	
% Phenol-d5	43		%	1	11/17/17	DD	15 - 110 %	
% Terphenyl-d14	77		%	1	11/17/17	DD	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
2-Methylnaphthalene	ND	0.97	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: BZ39895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	11/16/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	38		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	55		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	49		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	92		%	1	11/16/17	DD	30 - 130 %

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

TPH: Comment
The surrogate recovery was slightly below acceptance criteria for the ETPH analysis. The sample was re-extracted outside of hold-time, with a better surrogate recovery. Both results are ND. The initial prep and analysis are reported. The passing surrogate is reported.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
December 18, 2017
Reviewed and Released by: Sarah Bell, 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

December 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/10/17	13:00
Location Code:	TIGHE-DAS	Received by:	SW	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ39893
Phoenix ID: BZ39896

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium	0.023	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium	0.002	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/13/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/13/17	W/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Total Metals Digestion	Completed				11/13/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	11/18/17	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: BZ39896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: BZ39896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	11/16/17	MH	70 - 130 %
% Toluene-d8	105		%	1	11/16/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: BZ39896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
4-Chloroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
4-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
4-Nitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
Acetophenone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Aniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Benzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Benzoic acid	ND	48	ug/L	1	11/17/17	DD	SW8270D	
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Carbazole	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Diethyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Dimethylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Di-n-butylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Di-n-octylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Isophorone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodimethylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D	
Phenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	90		%	1	11/17/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	69		%	1	11/17/17	DD	30 - 130 %	
% 2-Fluorophenol	42		%	1	11/17/17	DD	15 - 110 %	
% Nitrobenzene-d5	59		%	1	11/17/17	DD	30 - 130 %	
% Phenol-d5	50		%	1	11/17/17	DD	15 - 110 %	
% Terphenyl-d14	86		%	1	11/17/17	DD	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	
2-Methylnaphthalene	ND	0.96	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	

Ver 2

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: BZ39896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	11/16/17	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	11/16/17	DD	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	11/16/17	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	11/16/17	DD	15 - 110 %
% Nitrobenzene-d5	62		%	1	11/16/17	DD	30 - 130 %
% Phenol-d5	56		%	1	11/16/17	DD	15 - 110 %
% Terphenyl-d14	97		%	1	11/16/17	DD	30 - 130 %

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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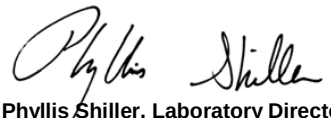

Phyllis Shiller, Laboratory Director
December 18, 2017
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 18, 2017

FOR: Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		11/10/17	
Location Code:	TIGHE-DAS	Received by:	SW	11/10/17	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ39893
Phoenix ID: BZ39897

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ39897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	11/16/17	MH	70 - 130 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ39897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	106		%	1	11/16/17	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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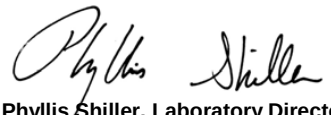

Phyllis Shiller, Laboratory Director
December 18, 2017
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
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QA/QC Report

December 18, 2017

QA/QC Data

SDG I.D.: GBZ39893

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 409361 (mg/L), QC Sample No: BZ39297 (BZ39893, BZ39894, BZ39895, BZ39896)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.4			89.0			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 409412 (mg/L), QC Sample No: BZ40141 (BZ39893, BZ39894, BZ39895, BZ39896)													
Thallium - Water	BRL	0.001	<0.001	<0.001	NC	109			101			75 - 125	20
QA/QC Batch 409434 (mg/L), QC Sample No: BZ40292 (BZ39893, BZ39894, BZ39895, BZ39896)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	97.0			92.6			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	94.9			93.7			75 - 125	20
Barium	BRL	0.002	0.091	0.094	3.20	102			95.0			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	98.8			94.9			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	94.5			87.1			75 - 125	20
Chromium	BRL	0.001	0.003	0.003	NC	96.3			91.0			75 - 125	20
Copper	BRL	0.005	0.014	<0.005	NC	99.4			92.1			75 - 125	20
Lead	BRL	0.002	<0.002	0.003	NC	94.3			85.6			75 - 125	20
Nickel	BRL	0.001	0.003	0.003	NC	96.8			88.2			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	90.7			87.2			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	96.0			91.8			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	97.2			92.9			75 - 125	20
Zinc	BRL	0.002	0.021	0.021	0	94.7			88.0			75 - 125	20

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 18, 2017

QA/QC Data

SDG I.D.: GBZ39893

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 409425 (mg/L), QC Sample No: BZ39271 (BZ39893, BZ39894, BZ39895, BZ39896)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	99.5			101			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 18, 2017

QA/QC Data

SDG I.D.: GBZ39893

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ39893, BZ39894, BZ39895, BZ39896)											
Semivolatiles (SIM) - Ground Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	65	71	8.8				30 - 130	20	
2-Methylnaphthalene	ND	0.02	57	62	8.4				30 - 130	20	
Acenaphthene	ND	0.02	68	73	7.1				30 - 130	20	
Acenaphthylene	ND	0.02	68	69	1.5				30 - 130	20	
Anthracene	ND	0.02	73	80	9.2				30 - 130	20	
Benz(a)anthracene	0.04	0.02	74	82	10.3				30 - 130	20	
Benzo(a)pyrene	ND	0.02	67	73	8.6				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	74	80	7.8				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	69	74	7.0				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	73	82	11.6				30 - 130	20	
Bis(2-ethylhexyl)phthalate	0.12	0.10	72	75	4.1				30 - 130	20	
Chrysene	0.03	0.02	71	76	6.8				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	83	90	8.1				30 - 130	20	
Dibenzofuran	ND	0.05	64	70	9.0				30 - 130	20	
Fluoranthene	ND	0.02	74	81	9.0				30 - 130	20	
Fluorene	ND	0.02	71	77	8.1				30 - 130	20	
Hexachlorobenzene	ND	0.02	78	84	7.4				30 - 130	20	
Hexachlorobutadiene	ND	0.05	51	54	5.7				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	41	50	19.8				30 - 130	20	
Hexachloroethane	ND	0.05	45	51	12.5				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	75	82	8.9				30 - 130	20	
Naphthalene	ND	0.02	52	55	5.6				30 - 130	20	
Nitrobenzene	ND	0.05	59	64	8.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	91	100	9.4				30 - 130	20	
Pentachlorophenol	ND	0.20	114	137	18.3				30 - 130	20	I
Phenanthrene	ND	0.02	70	75	6.9				30 - 130	20	
Pyrene	ND	0.02	77	82	6.3				30 - 130	20	
Pyridine	ND	0.50	46	51	10.3				30 - 130	20	
% 2,4,6-Tribromophenol	102	%	102	113	10.2				15 - 110	20	I
% 2-Fluorobiphenyl	65	%	60	64	6.5				30 - 130	20	
% 2-Fluorophenol	48	%	32	34	6.1				15 - 110	20	
% Nitrobenzene-d5	72	%	57	65	13.1				30 - 130	20	
% Phenol-d5	53	%	41	42	2.4				15 - 110	20	
% Terphenyl-d14	85	%	79	87	9.6				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GBZ39893

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ39893, BZ39894, BZ39895, BZ39896)										
Semivolatiles - Ground Water										
1,2,4-Trichlorobenzene	ND	3.5	59	61	3.3				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	48	52	8.0				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6	80	89	10.7				30 - 130	20
1,3-Dichlorobenzene	ND	1.0	47	50	6.2				30 - 130	20
1,4-Dichlorobenzene	ND	1.0	48	53	9.9				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0	83	91	9.2				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0	75	85	12.5				30 - 130	20
2,4-Dichlorophenol	ND	1.0	69	73	5.6				30 - 130	20
2,4-Dimethylphenol	ND	1.0	70	74	5.6				30 - 130	20
2,4-Dinitrophenol	ND	1.0	88	97	9.7				30 - 130	20
2,4-Dinitrotoluene	ND	3.5	87	97	10.9				30 - 130	20
2,6-Dinitrotoluene	ND	3.5	85	93	9.0				30 - 130	20
2-Chloronaphthalene	ND	3.5	71	80	11.9				30 - 130	20
2-Chlorophenol	ND	1.0	45	48	6.5				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0	59	62	5.0				30 - 130	20
2-Nitroaniline	ND	3.5	118	127	7.3				30 - 130	20
2-Nitrophenol	ND	1.0	61	65	6.3				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0	62	64	3.2				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0	84	78	7.4				30 - 130	20
3-Nitroaniline	ND	5.0	99	105	5.9				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0	90	101	11.5				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5	81	88	8.3				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0	83	86	3.6				30 - 130	20
4-Chloroaniline	ND	3.5	79	82	3.7				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0	84	93	10.2				30 - 130	20
4-Nitroaniline	ND	5.0	82	92	11.5				30 - 130	20
4-Nitrophenol	ND	1.0	89	95	6.5				15 - 130	20
Acetophenone	ND	3.5	59	62	5.0				30 - 130	20
Aniline	ND	3.5	60	63	4.9				30 - 130	20
Benzidine	ND	4.5	108	123	13.0				30 - 130	20
Benzoic acid	ND	10	52	52	0.0				30 - 130	20
Benzyl butyl phthalate	ND	1.5	86	92	6.7				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	69	73	5.6				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	43	47	8.9				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	47	50	6.2				30 - 130	20
Carbazole	ND	5.0	90	98	8.5				30 - 130	20
Diethyl phthalate	ND	1.5	85	94	10.1				30 - 130	20
Dimethylphthalate	ND	1.5	84	93	10.2				30 - 130	20
Di-n-butylphthalate	ND	1.5	90	99	9.5				30 - 130	20
Di-n-octylphthalate	ND	1.5	88	95	7.7				30 - 130	20
Isophorone	ND	3.5	68	73	7.1				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	47	49	4.2				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	66	71	7.3				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	77	87	12.2				30 - 130	20
Phenol	ND	1.0	46	43	6.7				15 - 130	20
% 2,4,6-Tribromophenol	69	%	93	102	9.2				15 - 110	20
% 2-Fluorobiphenyl	68	%	74	83	11.5				30 - 130	20
% 2-Fluorophenol	32	%	35	35	0.0				15 - 110	20
% Nitrobenzene-d5	56	%	57	60	5.1				30 - 130	20
% Phenol-d5	40	%	43	41	4.8				15 - 110	20

QA/QC Data

SDG I.D.: GBZ39893

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Terphenyl-d14	77	%	95	103	8.1				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 409929 (mg/L), QC Sample No: BZ39307 (BZ39893, BZ39894, BZ39896)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	77	80	3.8				60 - 120	30
% n-Pentacosane	64	%	84	83	1.2				50 - 150	20

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 410066 (ug/L), QC Sample No: BZ39897 (BZ39893, BZ39894, BZ39895, BZ39896, BZ39897)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	98	93	5.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	97	92	5.3				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	104	99	4.9				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	100	94	6.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	100	95	5.1				70 - 130	30
1,1-Dichloroethene	ND	1.0	105	99	5.9				70 - 130	30
1,1-Dichloropropene	ND	1.0	101	97	4.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	114	112	1.8				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	99	93	6.3				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	104	98	5.9				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	90	5.4				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	113	105	7.3				70 - 130	30
1,2-Dibromoethane	ND	1.0	103	95	8.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	99	93	6.3				70 - 130	30
1,2-Dichloroethane	ND	1.0	101	94	7.2				70 - 130	30
1,2-Dichloropropane	ND	1.0	100	94	6.2				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	97	92	5.3				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	98	94	4.2				70 - 130	30
1,3-Dichloropropane	ND	1.0	101	96	5.1				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	98	93	5.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	101	95	6.1				70 - 130	30
2-Chlorotoluene	ND	1.0	95	91	4.3				70 - 130	30
2-Hexanone	ND	5.0	106	97	8.9				70 - 130	30
2-Isopropyltoluene	ND	1.0	102	97	5.0				70 - 130	30
4-Chlorotoluene	ND	1.0	95	91	4.3				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	103	95	8.1				70 - 130	30
Acetone	ND	5.0	96	99	3.1				70 - 130	30
Acrylonitrile	ND	5.0	114	106	7.3				70 - 130	30
Benzene	ND	0.70	98	93	5.2				70 - 130	30
Bromobenzene	ND	1.0	96	90	6.5				70 - 130	30
Bromochloromethane	ND	1.0	101	95	6.1				70 - 130	30
Bromodichloromethane	ND	0.50	98	93	5.2				70 - 130	30
Bromoform	ND	1.0	94	90	4.3				70 - 130	30
Bromomethane	ND	1.0	124	122	1.6				70 - 130	30
Carbon Disulfide	ND	1.0	114	109	4.5				70 - 130	30
Carbon tetrachloride	ND	1.0	97	91	6.4				70 - 130	30
Chlorobenzene	ND	1.0	98	93	5.2				70 - 130	30

QA/QC Data

SDG I.D.: GBZ39893

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chloroethane	ND	1.0	107	101	5.8				70 - 130	30	
Chloroform	ND	1.0	96	91	5.3				70 - 130	30	
Chloromethane	ND	1.0	111	104	6.5				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	98	94	4.2				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	102	94	8.2				70 - 130	30	
Dibromochloromethane	ND	0.50	102	96	6.1				70 - 130	30	
Dibromomethane	ND	1.0	100	93	7.3				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	133	126	5.4				70 - 130	30	I
Ethylbenzene	ND	1.0	97	94	3.1				70 - 130	30	
Hexachlorobutadiene	ND	0.40	99	99	0.0				70 - 130	30	
Isopropylbenzene	ND	1.0	96	93	3.2				70 - 130	30	
m&p-Xylene	ND	1.0	104	98	5.9				70 - 130	30	
Methyl ethyl ketone	ND	5.0	112	104	7.4				70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	107	99	7.8				70 - 130	30	
Methylene chloride	ND	1.0	96	91	5.3				70 - 130	30	
Naphthalene	ND	1.0	115	111	3.5				70 - 130	30	
n-Butylbenzene	ND	1.0	98	94	4.2				70 - 130	30	
n-Propylbenzene	ND	1.0	97	92	5.3				70 - 130	30	
o-Xylene	ND	1.0	99	95	4.1				70 - 130	30	
p-Isopropyltoluene	ND	1.0	98	94	4.2				70 - 130	30	
sec-Butylbenzene	ND	1.0	103	98	5.0				70 - 130	30	
Styrene	ND	1.0	99	94	5.2				70 - 130	30	
tert-Butylbenzene	ND	1.0	97	93	4.2				70 - 130	30	
Tetrachloroethene	ND	1.0	97	93	4.2				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	107	98	8.8				70 - 130	30	
Toluene	ND	1.0	97	92	5.3				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	97	91	6.4				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	99	91	8.4				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	101	94	7.2				70 - 130	30	
Trichloroethene	ND	1.0	96	94	2.1				70 - 130	30	
Trichlorofluoromethane	ND	1.0	115	108	6.3				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	119	112	6.1				70 - 130	30	
Vinyl chloride	ND	1.0	112	106	5.5				70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	102	100	2.0				70 - 130	30	
% Bromofluorobenzene	102	%	102	100	2.0				70 - 130	30	
% Dibromofluoromethane	94	%	98	97	1.0				70 - 130	30	
% Toluene-d8	106	%	101	101	0.0				70 - 130	30	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 410498 (mg/L), QC Sample No: BZ44510 (BZ39895)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	98	102	4.0	97	95	2.1	60 - 120	30	
% n-Pentacosane	72	%	84	91	8.0	83	82	1.2	50 - 150	20	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

QA/QC Data

SDG I.D.: GBZ39893

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
December 18, 2017

Monday, December 18, 2017
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GBZ39893 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ39893	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39893	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39893	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39894	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39894	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39894	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39894	$8270-CTSIMR	Benzo(ghi)perylene	CT / RSR GWPC (ug/l) / APS Organics	0.74	0.20	0.48	0.48	ug/L
BZ39894	$8270-CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.64	0.05	0.1	0.1	ug/L
BZ39894	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.41	0.05	0.06	0.06	ug/L
BZ39894	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	0.86	0.05	0.2	0.2	ug/L
BZ39894	$8270-CTSIMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.57	0.05	0.08	0.08	ug/L
BZ39894	$8270-CTSIMR	Benzo(k)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.56	0.05	0.5	0.5	ug/L
BZ39894	$8270-CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	0.64	0.05	0.54	0.54	ug/L
BZ39894	$8270-CTSIMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	0.41	0.05	0.3	0.3	ug/L
BZ39894	$8270-CTSIMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.56	0.05	0.3	0.3	ug/L
BZ39894	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.09	0.05	0.077	0.077	ug/L
BZ39894	$8270-CTSIMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.57	0.05	0.3	0.3	ug/L
BZ39894	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.86	0.05	0.3	0.3	ug/L
BZ39895	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39895	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39895	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39895	$8260GWR	Tetrachloroethene	CT / RSR GWPC (ug/l) / Volatiles	6.4	1.0	5	5	ug/L
BZ39896	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39896	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
BZ39896	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39897	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
BZ39897	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
BZ39897	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

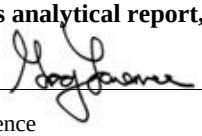
Laboratory Sample ID(s): BZ39893-BZ39897 ***Sampling Date(s):*** 11/10/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7000, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: SVOASIM Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Monday, December 18, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

CTDEP RCP Laboratory Analysis QA/QC Certification Form - November 2007
Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

December 18, 2017

SDG I.D.: GBZ39893

SDG Comments

Volatile 8260 analysis:
The reporting level for Acrylonitrile is above the GWP criteria.
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet the GWP these compounds are analyzed by GC/ECD to achieve this criteria.

AA Metals (TL) Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

PE600-2 11/14/17 14:04 Rick Schweitzer, Chemist 11/14/17

BZ39893, BZ39894, BZ39895, BZ39896

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The CRDL met criteria.
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 samples did not meet analytical spike criteria: None.

QC (Batch Specific):

Batch 409412 (BZ40141)

BZ39893, BZ39894, BZ39895, BZ39896

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/14/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/14/17

BZ39893, BZ39894, BZ39895, BZ39896

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 409425 (BZ39271)

BZ39893, BZ39894, BZ39895, BZ39896

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RCP Certification Report

December 18, 2017

SDG I.D.: GBZ39893

Cyanide Narration

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-XL1 11/22/17-1 Jeff Bucko, Chemist 11/22/17

BZ39895

The initial calibration (ETPHN03I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 11/17/17-1 Jeff Bucko, Chemist 11/17/17

BZ39893, BZ39894, BZ39896

The initial calibration (ETPHO23I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 409929 (BZ39307)

BZ39893, BZ39894, BZ39896

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.

Batch 410498 (BZ44510)

BZ39895

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/13/17 08:39 Rick Schweitzer, Chemist 11/13/17

BZ39893, BZ39894, BZ39895, BZ39896

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

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

December 18, 2017

SDG I.D.: GBZ39893

Mercury Narration

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 409361 (BZ39297)

BZ39893, BZ39894, BZ39895, BZ39896

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 11/14/17 13:40 Mike Arsenault, Chemist 11/14/17

BZ39893, BZ39894, BZ39895, BZ39896

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 409434 (BZ40292)

BZ39893, BZ39894, BZ39895, BZ39896

All LCS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM29 11/17/17-1 Damien Drobinski, Chemist 11/17/17

BZ39893, BZ39894, BZ39895, BZ39896

Initial Calibration Verification (CHEM29/SPLIT_1115):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dimethylphenol 24% (20%), 2-Nitroaniline 21% (20%), 2-Nitrophenol 25% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1)
The following compounds did not meet a minimum response factors: None.

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RCP Certification Report

December 18, 2017

SDG I.D.: GBZ39893

SVOA Narration

Continuing Calibration Verification (CHEM29/1117_02-SPLIT_1115):
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: 2-Nitrophenol 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409565 (BZ39299)

BZ39893, BZ39894, BZ39895, BZ39896

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409565 (Samples: BZ39893, BZ39894, BZ39895, BZ39896): -----

A trace amount of an analyte was found in blank but were not reported in the sample(s), therefore no bias is suspected. (Bis(2-ethylhexyl)phthalate)

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (Benz(a)anthracene(BZ39894), Chrysene(BZ39894))

The LCSD recovery for one of the surrogates is above the upper range. No significant bias is suspected. (% 2,4,6-Tribromophenol)

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Pentachlorophenol)

Instrument:

CHEM07 11/16/17-1 Damien Drobinski, Chemist 11/16/17

BZ39893, BZ39894, BZ39895, BZ39896

Initial Calibration Verification (CHEM07/SIM_1025):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1116_02-SIM_1025):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

December 18, 2017

SDG I.D.: GBZ39893

SVOASIM Narration

100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409565 (BZ39299)

BZ39893, BZ39894, BZ39895, BZ39896

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: % 2,4,6-Tribromophenol(113%), Pentachlorophenol(137%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 410066 (Samples: BZ39893, BZ39894, BZ39895, BZ39896, BZ39897): -----

The LCS recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

Instrument:

CHEM02 11/16/17-1 Michael Hahn, Chemist 11/16/17

BZ39893, BZ39894, BZ39895, BZ39896, BZ39897

Initial Calibration Verification (CHEM02/VT-P1112):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 37% (20%), Acrylonitrile 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.020 (0.05), 2-Hexanone 0.048 (0.1), 4-Methyl-2-pentanone 0.070 (0.1), Acetone 0.032 (0.1), Acrylonitrile 0.034 (0.05), Bromoform 0.080 (0.1), Methyl ethyl ketone 0.045 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1116P02-VT-P1112):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.216 (0.3), 1,2-Dibromo-3-chloropropane 0.021 (0.05), Acrylonitrile 0.035 (0.05), Bromoform 0.075 (0.1), Tetrahydrofuran (THF) 0.031 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 410066 (BZ39897)

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RCP Certification Report

December 18, 2017

SDG I.D.: GBZ39893

VOA Narration

BZ39893, BZ39894, BZ39895, BZ39896, BZ39897

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(133%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.0C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐

CHAIN OF CUSTODY RECORD

Temp 4.0 °C Pg 1 of 1

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:
☐ Fax #:
☒ Email: LynnMay@tnbcad.com

Customer: Tighe + Bond
Address: 213 Court Street
Suite 1100
Middletown CT

Project: Rechville mgp
Report to: Lynn Wiley
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/10/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	RCP Metals	EPH	TCN	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
39893	mw-28R	GW	11/10/17	0825	X	X	X	X	X				3	3			1	1		
39894	mw-45R			10:00	X	X	X	X	X				3	3			1	1		
39895	mw-17S			11:25	X	X	X	X	X				3	3			1	1		
39896	mw-16S			1300	X	X	X	X	X				3	3			1	1		
39897	Trip Blank	—	—	—	X															

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	11/10/17	1630

Comments, Special Requirements or Regulations:
Quote: TIGHE FAB
DAS Pricing

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

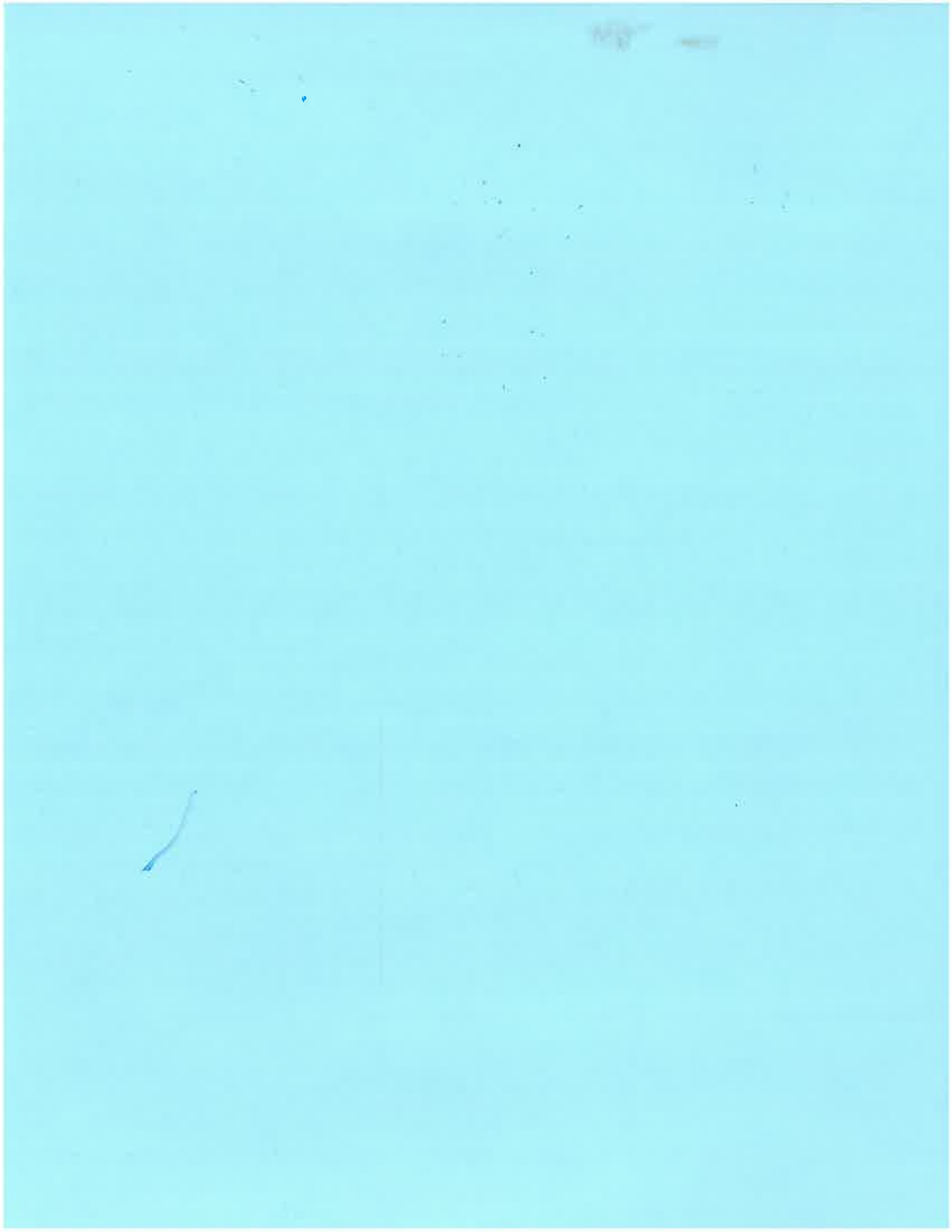
CT
☒ RCP Cert
☐ GW Protection
☒ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☒ Other ResVC

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 Geotech

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES



PHOENIX
Environmental Laboratories, Inc.

Monday, November 27, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ40749 - BZ40756

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	13:45
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40749

Project ID: ROCKVILLE MGP
Client ID: SED-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	< 0.79	0.79	mg/Kg	1	11/16/17	MA	SW6010C
Barium	29.0	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.32	0.32	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	9.22	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Copper	16.1	0.40	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	6.81	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Lead	37.7	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	21.7	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	53.2	0.40	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	74		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.61	0.61	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	19000	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	170	66	mg/Kg	1	11/17/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	11/17/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-01

Phoenix I.D.: BZ40749

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	66		%	1	11/17/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1221	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1232	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1242	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1248	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1254	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1260	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1262	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1268	ND	440	ug/Kg	10	11/23/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	91		%	10	11/23/17	AW	30 - 150 %
% TCMX	81		%	10	11/23/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-01

Phoenix I.D.: BZ40749

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.6	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	9.6	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.6	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.6	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	4.8	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-01

Phoenix I.D.: BZ40749

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,4-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dimethylphenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrophenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrotoluene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,6-Dinitrotoluene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Chloronaphthalene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Chlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylnaphthalene	420	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitroaniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitrophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
3-Nitroaniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloroaniline	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitroaniline	ND	710	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitrophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthene	1300	310	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthylene	380	310	ug/Kg	1	11/14/17	DD	SW8270D
Acetophenone	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Aniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Anthracene	3300	310	ug/Kg	1	11/14/17	DD	SW8270D
Benz(a)anthracene	7200	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzidine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(a)pyrene	6100	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(b)fluoranthene	5300	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(ghi)perylene	3300	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(k)fluoranthene	5400	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzoic acid	ND	880	ug/Kg	1	11/14/17	DD	SW8270D
Benzyl butyl phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Carbazole	1500	440	ug/Kg	1	11/14/17	DD	SW8270D
Chrysene	7600	310	ug/Kg	1	11/14/17	DD	SW8270D
Dibenz(a,h)anthracene	800	310	ug/Kg	1	11/14/17	DD	SW8270D
Dibenzofuran	1100	310	ug/Kg	1	11/14/17	DD	SW8270D
Diethyl phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Dimethylphthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Di-n-butylphthalate	ND	880	ug/Kg	1	11/14/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-01

Phoenix I.D.: BZ40749

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Fluoranthene	19000	3100	ug/Kg	10	11/20/17	DD	SW8270D
Fluorene	1400	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobutadiene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachloroethane	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	3900	310	ug/Kg	1	11/14/17	DD	SW8270D
Isophorone	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Naphthalene	770	310	ug/Kg	1	11/14/17	DD	SW8270D
Nitrobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodimethylamine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Pentachloronitrobenzene	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Phenanthrene	19000	3100	ug/Kg	10	11/20/17	DD	SW8270D
Phenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Pyrene	16000	3100	ug/Kg	10	11/20/17	DD	SW8270D
Pyridine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorobiphenyl	67		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorophenol	58		%	1	11/14/17	DD	30 - 130 %
% Nitrobenzene-d5	66		%	1	11/14/17	DD	30 - 130 %
% Phenol-d5	63		%	1	11/14/17	DD	30 - 130 %
% Terphenyl-d14	59		%	1	11/14/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C16 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	13:10
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40750

Project ID: ROCKVILLE MGP
Client ID: SED-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.44	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	2.26	0.89	mg/Kg	1	11/16/17	MA	SW6010C
Barium	49.5	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.36	0.36	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	< 0.44	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	17.5	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Copper	26.1	0.44	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	8.70	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Lead	64.1	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 4.4	4.4	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 4.0	4.0	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	37.3	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	77.4	0.44	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	73		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.68	0.68	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	17000	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
Sieve Test	Completed	0.1	%		11/18/17	*	ASTM D4222
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	310	67	mg/Kg	1	11/17/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-02

Phoenix I.D.: BZ40750

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Identification	**		mg/Kg	1	11/17/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	11/17/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1221	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1232	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1242	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1248	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1254	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1260	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1262	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
PCB-1268	ND	450	ug/Kg	10	11/23/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	71		%	10	11/23/17	AW	30 - 150 %
% TCMX	66		%	10	11/23/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	33	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	330	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-02

Phoenix I.D.: BZ40750

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-02

Phoenix I.D.: BZ40750

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
1,3-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
1,4-Dichlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dimethylphenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrophenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrotoluene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2,6-Dinitrotoluene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Chloronaphthalene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Chlorophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylnaphthalene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitroaniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitrophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
3-Nitroaniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloroaniline	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitroaniline	ND	710	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitrophenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthylene	420	310	ug/Kg	1	11/14/17	DD	SW8270D
Acetophenone	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Aniline	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Anthracene	900	310	ug/Kg	1	11/14/17	DD	SW8270D
Benz(a)anthracene	3000	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzidine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(a)pyrene	2700	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(b)fluoranthene	2800	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(ghi)perylene	1600	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(k)fluoranthene	2600	310	ug/Kg	1	11/14/17	DD	SW8270D
Benzoic acid	ND	890	ug/Kg	1	11/14/17	DD	SW8270D
Benzyl butyl phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Carbazole	660	440	ug/Kg	1	11/14/17	DD	SW8270D
Chrysene	3500	310	ug/Kg	1	11/14/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Dibenzofuran	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Diethyl phthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Dimethylphthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-02

Phoenix I.D.: BZ40750

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	890	ug/Kg	1	11/14/17	DD	SW8270D
Di-n-octylphthalate	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Fluoranthene	7100	310	ug/Kg	1	11/14/17	DD	SW8270D
Fluorene	350	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobutadiene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Hexachloroethane	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1700	310	ug/Kg	1	11/14/17	DD	SW8270D
Isophorone	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Naphthalene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Nitrobenzene	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodimethylamine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Pentachloronitrobenzene	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
Phenanthrene	4300	310	ug/Kg	1	11/14/17	DD	SW8270D
Phenol	ND	310	ug/Kg	1	11/14/17	DD	SW8270D
Pyrene	5600	310	ug/Kg	1	11/14/17	DD	SW8270D
Pyridine	ND	440	ug/Kg	1	11/14/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorophenol	62		%	1	11/14/17	DD	30 - 130 %
% Nitrobenzene-d5	68		%	1	11/14/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/14/17	DD	30 - 130 %
% Terphenyl-d14	60		%	1	11/14/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SED-02

Phoenix I.D.: BZ40750

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:

* See Attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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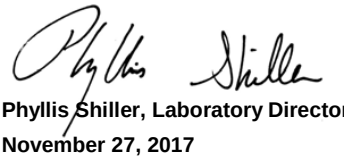

Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	11:45
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40751

Project ID: ROCKVILLE MGP
Client ID: SED-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	1.50	0.75	mg/Kg	1	11/16/17	MA	SW6010C
Barium	27.5	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.30	0.30	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	0.40	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	10.2	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Copper	27.6	0.38	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	7.53	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Lead	26.1	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	31.9	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	77.6	0.38	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	85		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	5100	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	290	mg/Kg	5	11/15/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	11/15/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-03

Phoenix I.D.: BZ40751

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	64		%	5	11/15/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1221	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1232	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1242	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1248	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1254	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1260	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1262	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1268	ND	390	ug/Kg	10	11/22/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	90		%	10	11/22/17	AW	30 - 150 %
% TCMX	79		%	10	11/22/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-03

Phoenix I.D.: BZ40751

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	5.4	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	96		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	11/14/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-03

Phoenix I.D.: BZ40751

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitroaniline	ND	610	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthylene	580	270	ug/Kg	1	11/14/17	DD	SW8270D
Acetophenone	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Aniline	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Anthracene	880	270	ug/Kg	1	11/14/17	DD	SW8270D
Benz(a)anthracene	4000	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzidine	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(a)pyrene	3600	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(b)fluoranthene	3100	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(ghi)perylene	1800	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(k)fluoranthene	3400	270	ug/Kg	1	11/14/17	DD	SW8270D
Benzoic acid	ND	760	ug/Kg	1	11/14/17	DD	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Carbazole	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Chrysene	4100	270	ug/Kg	1	11/14/17	DD	SW8270D
Dibenz(a,h)anthracene	430	270	ug/Kg	1	11/14/17	DD	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Di-n-butylphthalate	ND	760	ug/Kg	1	11/14/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-03

Phoenix I.D.: BZ40751

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Fluoranthene	6600	270	ug/Kg	1	11/14/17	DD	SW8270D
Fluorene	310	270	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	2000	270	ug/Kg	1	11/14/17	DD	SW8270D
Isophorone	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
Phenanthrene	2500	270	ug/Kg	1	11/14/17	DD	SW8270D
Phenol	ND	270	ug/Kg	1	11/14/17	DD	SW8270D
Pyrene	6300	270	ug/Kg	1	11/14/17	DD	SW8270D
Pyridine	ND	380	ug/Kg	1	11/14/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorobiphenyl	78		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorophenol	66		%	1	11/14/17	DD	30 - 130 %
% Nitrobenzene-d5	78		%	1	11/14/17	DD	30 - 130 %
% Phenol-d5	72		%	1	11/14/17	DD	30 - 130 %
% Terphenyl-d14	68		%	1	11/14/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	11:40
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40752

Project ID: ROCKVILLE MGP
Client ID: SED-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	2.10	0.71	mg/Kg	1	11/16/17	MA	SW6010C
Barium	40.6	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.28	0.28	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	0.89	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	14.6	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Copper	46.4	0.35	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	9.02	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Lead	78.2	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	41.5	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	88.5	0.35	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	87		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	6200	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	290	mg/Kg	5	11/15/17	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	11/15/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-04

Phoenix I.D.: BZ40752

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	78		%	5	11/15/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	11/22/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	97		%	10	11/22/17	AW	30 - 150 %
% TCMX	83		%	10	11/22/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-04

Phoenix I.D.: BZ40752

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	6.4	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	11/14/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-04

Phoenix I.D.: BZ40752

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	11/14/17	DD	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Acenaphthylene	290	260	ug/Kg	1	11/14/17	DD	SW8270D
Acetophenone	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Aniline	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Benz(a)anthracene	1000	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzidine	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(a)pyrene	1100	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(b)fluoranthene	890	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(ghi)perylene	780	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzo(k)fluoranthene	1000	260	ug/Kg	1	11/14/17	DD	SW8270D
Benzoic acid	ND	740	ug/Kg	1	11/14/17	DD	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Carbazole	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Chrysene	1200	260	ug/Kg	1	11/14/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	1	11/14/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-04

Phoenix I.D.: BZ40752

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Fluoranthene	1500	260	ug/Kg	1	11/14/17	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	770	260	ug/Kg	1	11/14/17	DD	SW8270D
Isophorone	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
Phenanthrene	810	260	ug/Kg	1	11/14/17	DD	SW8270D
Phenol	ND	260	ug/Kg	1	11/14/17	DD	SW8270D
Pyrene	1600	260	ug/Kg	1	11/14/17	DD	SW8270D
Pyridine	ND	370	ug/Kg	1	11/14/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorobiphenyl	71		%	1	11/14/17	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	11/14/17	DD	30 - 130 %
% Nitrobenzene-d5	66		%	1	11/14/17	DD	30 - 130 %
% Phenol-d5	61		%	1	11/14/17	DD	30 - 130 %
% Terphenyl-d14	63		%	1	11/14/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	12:50
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40753

Project ID: ROCKVILLE MGP
Client ID: SED-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.46	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	1.26	0.91	mg/Kg	1	11/16/17	MA	SW6010C
Barium	29.6	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.37	0.37	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	< 0.46	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	11.3	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Copper	20.0	0.46	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	7.97	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Lead	28.8	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 4.6	4.6	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 4.1	4.1	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	31.7	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	70.9	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	75		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.61	0.61	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	10000	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	330	66	mg/Kg	1	11/17/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	11/17/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-05

Phoenix I.D.: BZ40753

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	73		%	1	11/17/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1221	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1232	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1242	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1248	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1254	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1260	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1262	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1268	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	92		%	10	11/22/17	AW	30 - 150 %
% TCMX	81		%	10	11/22/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-05

Phoenix I.D.: BZ40753

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	95		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	440	ug/Kg	1	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-05

Phoenix I.D.: BZ40753

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2-Chlorophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2-Methylnaphthalene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
2-Nitroaniline	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
2-Nitrophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
3-Nitroaniline	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
4-Chloroaniline	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
4-Nitroaniline	ND	700	ug/Kg	1	11/15/17	DD	SW8270D
4-Nitrophenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Acenaphthene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Acenaphthylene	410	310	ug/Kg	1	11/15/17	DD	SW8270D
Acetophenone	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Aniline	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Anthracene	590	310	ug/Kg	1	11/15/17	DD	SW8270D
Benz(a)anthracene	1900	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzidine	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(a)pyrene	1800	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(b)fluoranthene	1700	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(ghi)perylene	1100	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(k)fluoranthene	1700	310	ug/Kg	1	11/15/17	DD	SW8270D
Benzoic acid	ND	870	ug/Kg	1	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Carbazole	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Chrysene	2100	310	ug/Kg	1	11/15/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Dibenzofuran	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Diethyl phthalate	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Dimethylphthalate	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	870	ug/Kg	1	11/15/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-05

Phoenix I.D.: BZ40753

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Fluoranthene	3400	310	ug/Kg	1	11/15/17	DD	SW8270D
Fluorene	320	310	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorobutadiene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Hexachloroethane	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1100	310	ug/Kg	1	11/15/17	DD	SW8270D
Isophorone	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Naphthalene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Nitrobenzene	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Pentachloronitrobenzene	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
Phenanthrene	2200	310	ug/Kg	1	11/15/17	DD	SW8270D
Phenol	ND	310	ug/Kg	1	11/15/17	DD	SW8270D
Pyrene	3100	310	ug/Kg	1	11/15/17	DD	SW8270D
Pyridine	ND	440	ug/Kg	1	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorobiphenyl	75		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	67		%	1	11/15/17	DD	30 - 130 %
% Nitrobenzene-d5	77		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	71		%	1	11/15/17	DD	30 - 130 %
% Terphenyl-d14	67		%	1	11/15/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	12:30
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40754

Project ID: ROCKVILLE MGP
Client ID: SED-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.46	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	3.95	0.91	mg/Kg	1	11/16/17	MA	SW6010C
Barium	24.5	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.37	0.37	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	0.94	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	17.4	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Copper	2190	46	mg/kg	100	11/16/17	MA	SW6010C
Mercury	0.10	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	12.2	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Lead	153	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 4.6	4.6	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 4.1	4.1	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	26.5	0.46	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	292	4.6	mg/Kg	10	11/16/17	MA	SW6010C
Percent Solid	77		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	24000	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/14/17	CC/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1100	320	mg/Kg	5	11/15/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	11/15/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-06

Phoenix I.D.: BZ40754

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	147		%	5	11/15/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1221	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1232	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1242	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1248	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1254	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1260	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1262	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1268	ND	430	ug/Kg	10	11/22/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	101		%	10	11/22/17	AW	30 - 150 %
% TCMX	83		%	10	11/22/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-06

Phoenix I.D.: BZ40754

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	3.5	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	35	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	5.8	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-06

Phoenix I.D.: BZ40754

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2-Chlorophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2-Methylnaphthalene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
2-Nitroaniline	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
2-Nitrophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
3-Nitroaniline	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
4-Chloroaniline	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
4-Nitroaniline	ND	6900	ug/Kg	10	11/15/17	DD	SW8270D
4-Nitrophenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Acenaphthene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Acenaphthylene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Acetophenone	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Aniline	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Anthracene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benz(a)anthracene	3900	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzidine	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(a)pyrene	3600	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(b)fluoranthene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(ghi)perylene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzo(k)fluoranthene	3400	3000	ug/Kg	10	11/15/17	DD	SW8270D
Benzoic acid	ND	8600	ug/Kg	10	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Carbazole	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Chrysene	4700	3000	ug/Kg	10	11/15/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Dibenzofuran	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Diethyl phthalate	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Dimethylphthalate	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	8600	ug/Kg	10	11/15/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-06

Phoenix I.D.: BZ40754

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Fluoranthene	7000	3000	ug/Kg	10	11/15/17	DD	SW8270D
Fluorene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Hexachlorobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Hexachlorobutadiene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Hexachloroethane	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Isophorone	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Naphthalene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Nitrobenzene	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Pentachloronitrobenzene	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Pentachlorophenol	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
Phenanthrene	5500	3000	ug/Kg	10	11/15/17	DD	SW8270D
Phenol	ND	3000	ug/Kg	10	11/15/17	DD	SW8270D
Pyrene	8300	3000	ug/Kg	10	11/15/17	DD	SW8270D
Pyridine	ND	4300	ug/Kg	10	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	11/15/17	DD	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	11/15/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SED-06

Phoenix I.D.: BZ40754

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:
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.

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.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		11/13/17	13:11
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40755

Project ID: ROCKVILLE MGP
Client ID: SED-DUP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Arsenic	1.35	0.82	mg/Kg	1	11/16/17	MA	SW6010C
Barium	36.3	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Beryllium	< 0.33	0.33	mg/Kg	1	11/16/17	MA	SW6010C
Cadmium	< 0.41	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Chromium	10.1	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Copper	28.4	0.41	mg/kg	1	11/16/17	MA	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	11/15/17	RS	SW7471B
Nickel	7.25	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Lead	46.1	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	11/16/17	MA	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	11/16/17	MA	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	11/16/17	MA	SW6010C
Vanadium	29.5	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Zinc	86.8	0.41	mg/Kg	1	11/16/17	MA	SW6010C
Percent Solid	77		%		11/13/17	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	11/14/17	O/GD	SW9012B
Tot.Org.Carbon	25000	100	mg/kg	1	11/16/17	MA	SW9060A/L. Kahn
Soil Extraction for PCB	Completed				11/21/17	BB/V	SW3545A
Soil Extraction for SVOA	Completed				11/14/17	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/15/17	AA/VCK	SW3545A
Mercury Digestion	Completed				11/15/17	W/W	SW7471B
Total Metals Digest	Completed				11/14/17	B/AG	SW3050B
Tot.Org.Carbon Preparation	Completed				11/13/17	MA	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	250	63	mg/Kg	1	11/20/17	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	11/20/17	JRB	CTETPH 8015D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-DUP

Phoenix I.D.: BZ40755

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% n-Pentacosane	87		%	1	11/20/17	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1221	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1232	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1242	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1248	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1254	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1260	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1262	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
PCB-1268	ND	420	ug/Kg	10	11/22/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	93		%	10	11/22/17	AW	30 - 150 %
% TCMX	81		%	10	11/22/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.2	ug/Kg	1	11/14/17	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloroethene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,1-Dichloropropene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,2-Dichloropropane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,3-Dichloropropane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
2,2-Dichloropropane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
2-Chlorotoluene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
2-Hexanone	ND	35	ug/Kg	1	11/14/17	JLI	SW8260C
2-Isopropyltoluene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
4-Chlorotoluene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
4-Methyl-2-pentanone	ND	35	ug/Kg	1	11/14/17	JLI	SW8260C
Acetone	ND	350	ug/Kg	1	11/14/17	JLI	SW8260C
Acrylonitrile	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Benzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Bromobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Bromochloromethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Bromodichloromethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-DUP

Phoenix I.D.: BZ40755

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromoform	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Bromomethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon Disulfide	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Carbon tetrachloride	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Chlorobenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Chloroform	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Chloromethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromochloromethane	ND	4.2	ug/Kg	1	11/14/17	JLI	SW8260C
Dibromomethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Dichlorodifluoromethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Ethylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Hexachlorobutadiene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Isopropylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
m&p-Xylene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl Ethyl Ketone	ND	42	ug/Kg	1	11/14/17	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	11/14/17	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	11/14/17	JLI	SW8260C
Naphthalene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
n-Butylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
n-Propylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
o-Xylene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
p-Isopropyltoluene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
sec-Butylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Styrene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
tert-Butylbenzene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrachloroethene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	11/14/17	JLI	SW8260C
Toluene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Total Xylenes	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	11/14/17	JLI	SW8260C
Trichloroethene	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorofluoromethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
Vinyl chloride	ND	7.0	ug/Kg	1	11/14/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/14/17	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	11/14/17	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	11/14/17	JLI	70 - 130 %
% Toluene-d8	97		%	1	11/14/17	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	430	ug/Kg	1	11/15/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-DUP

Phoenix I.D.: BZ40755

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dinitrophenol	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
2,4-Dinitrotoluene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2,6-Dinitrotoluene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
2-Nitroaniline	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
3-Nitroaniline	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
4-Chloroaniline	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
4-Nitroaniline	ND	680	ug/Kg	1	11/15/17	DD	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Acenaphthene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Acenaphthylene	490	300	ug/Kg	1	11/15/17	DD	SW8270D
Acetophenone	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Aniline	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Anthracene	790	300	ug/Kg	1	11/15/17	DD	SW8270D
Benz(a)anthracene	2700	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzidine	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(a)pyrene	2400	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(b)fluoranthene	2200	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(ghi)perylene	1400	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzo(k)fluoranthene	2100	300	ug/Kg	1	11/15/17	DD	SW8270D
Benzoic acid	ND	850	ug/Kg	1	11/15/17	DD	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Carbazole	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Chrysene	3000	300	ug/Kg	1	11/15/17	DD	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Dibenzofuran	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Di-n-butylphthalate	ND	850	ug/Kg	1	11/15/17	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-DUP

Phoenix I.D.: BZ40755

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-octylphthalate	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Fluoranthene	6100	300	ug/Kg	1	11/15/17	DD	SW8270D
Fluorene	350	300	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorobutadiene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	1500	300	ug/Kg	1	11/15/17	DD	SW8270D
Isophorone	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Naphthalene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Nitrobenzene	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodimethylamine	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Pentachloronitrobenzene	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Pentachlorophenol	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
Phenanthrene	3800	300	ug/Kg	1	11/15/17	DD	SW8270D
Phenol	ND	300	ug/Kg	1	11/15/17	DD	SW8270D
Pyrene	5000	300	ug/Kg	1	11/15/17	DD	SW8270D
Pyridine	ND	430	ug/Kg	1	11/15/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorobiphenyl	70		%	1	11/15/17	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	11/15/17	DD	30 - 130 %
% Nitrobenzene-d5	71		%	1	11/15/17	DD	30 - 130 %
% Phenol-d5	66		%	1	11/15/17	DD	30 - 130 %
% Terphenyl-d14	62		%	1	11/15/17	DD	30 - 130 %
Field Extraction	Completed				11/13/17		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 27, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		11/13/17	14:40
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40749
Phoenix ID: BZ40756

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C/E200.7
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C/E200.7
Barium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C/E200.7
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C/E200.7
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C/E200.7
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C/E200.7
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C/E200.7
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470/245.1
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C/E200.7
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C/E200.7
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C/E200.7
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C/E200.7
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C/E200.7
Zinc	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C/E200.7
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Digestion	Completed				11/14/17	QW/W	SW7470/245.1
PCB Extraction	Completed				11/14/17		SW3510C
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	11/18/17	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2

Phoenix I.D.: BZ40756

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1221	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1232	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1242	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1248	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1254	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1260	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1262	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
PCB-1268	ND	0.48	ug/L	1	11/15/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	98		%	1	11/15/17	AW	30 - 150 %
% TCMX	107		%	1	11/15/17	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2

Phoenix I.D.: BZ40756

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND		5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND		0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND		0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND		0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND		5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	3.3	S	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND		2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND		1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	103			%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	99			%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	97			%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	106			%	1	11/17/17	MH	70 - 130 %
Semivolatiles								
1,2,4-Trichlorobenzene	ND		4.8	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND		2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND		4.8	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND		2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND		2.4	ug/L	1	11/17/17	DD	SW8270D
2,4,5-Trichlorophenol	ND		0.96	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2

Phoenix I.D.: BZ40756

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.96	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	74		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	42		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	63		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	49		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	81		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.96	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2

Phoenix I.D.: BZ40756

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.77	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.48	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	91		%	1	11/16/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	68		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	49		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	66		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	54		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	96		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK 2
Phoenix I.D.: BZ40756

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2017
Reviewed and Released by: Ethan Lee, Project Manager

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QA/QC Report

November 27, 2017

QA/QC Data

SDG I.D.: GBZ40749

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 409475 (mg/L), QC Sample No: BZ40032 (BZ40756)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	95.2			84.4			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 409412 (mg/L), QC Sample No: BZ40141 (BZ40756)														
Thallium - Water	BRL	0.001	<0.001	<0.001	NC	109			101			75 - 125	20	
QA/QC Batch 409587 (mg/kg), QC Sample No: BZ40749 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)														
ICP Metals - Soil														
Antimony	BRL	3.3	<4.0	<4.3	NC	93.5			88.2			75 - 125	30	
Arsenic	BRL	0.67	<0.79	0.87	NC	92.9			87.0			75 - 125	30	
Barium	BRL	0.33	29.0	50.6	54.3	94.7			95.2			75 - 125	30	r
Beryllium	BRL	0.27	<0.32	<0.34	NC	96.0			96.2			75 - 125	30	
Cadmium	BRL	0.33	<0.40	0.48	NC	98.0			94.0			75 - 125	30	
Chromium	BRL	0.33	9.22	14.3	43.2	96.2			101			75 - 125	30	r
Copper	BRL	0.33	16.1	34.9	73.7	95.7			101			75 - 125	30	r
Lead	BRL	0.33	37.7	46.8	21.5	96.6			97.0			75 - 125	30	
Nickel	BRL	0.33	6.81	7.61	11.1	97.7			96.6			75 - 125	30	
Selenium	BRL	1.3	<1.6	<1.7	NC	93.7			100			75 - 125	30	
Silver	BRL	0.33	<0.40	<0.43	NC	89.6			96.1			75 - 125	30	
Thallium	BRL	3.0	<3.6	<3.8	NC	98.6			96.4			75 - 125	30	
Vanadium	BRL	0.33	21.7	20.6	5.20	96.3			97.8			75 - 125	30	
Zinc	BRL	0.33	53.2	57.5	7.80	95.2			92.9			75 - 125	30	
QA/QC Batch 409657 (mg/kg), QC Sample No: BZ40749 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	81.4	82.0	0.7	95.4			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 409594 (mg/L), QC Sample No: BZ40979 (BZ40756)														
ICP Metals - Aqueous														
Antimony	BRL	0.005	<0.005	<0.005	NC	90.7			86.9			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	91.0			88.8			75 - 125	20	
Barium	BRL	0.002	0.010	0.008	NC	102			96.0			75 - 125	20	
Beryllium	BRL	0.001	0.001	<0.001	NC	104			98.4			75 - 125	20	
Cadmium	BRL	0.001	<0.001	<0.001	NC	90.7			87.0			75 - 125	20	
Chromium	BRL	0.001	<0.001	<0.001	NC	91.0			87.9			75 - 125	20	
Copper	BRL	0.005	0.026	0.020	NC	99.6			93.8			75 - 125	20	
Lead	BRL	0.002	<0.002	<0.002	NC	89.7			86.4			75 - 125	20	
Nickel	BRL	0.001	<0.001	<0.001	NC	90.1			86.7			75 - 125	20	
Selenium	BRL	0.010	<0.010	<0.010	NC	87.5			84.1			75 - 125	20	
Silver	BRL	0.001	<0.001	<0.001	NC	96.4			92.4			75 - 125	20	
Vanadium	BRL	0.002	<0.002	<0.002	NC	97.6			92.5			75 - 125	20	
Zinc	BRL	0.002	<0.002	<0.002	NC	90.8			88.4			75 - 125	20	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

r = This parameter is outside laboratory RPD specified recovery limits.

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QA/QC Report

November 27, 2017

QA/QC Data

SDG I.D.: GBZ40749

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 409425 (mg/L), QC Sample No: BZ39271 (BZ40756)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	99.5			101			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 409417 (mg/Kg), QC Sample No: BZ40716 50X (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.56	NC	97.1			102			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 409905 (mg/kg), QC Sample No: BZ40750 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)													
Tot.Org.Carbon	BRL	100	17000	18000	NC	94.0						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													

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QA/QC Report

November 27, 2017

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ40756)											
Semivolatiles (SIM) - Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	65	71	8.8				30 - 130	20	
2-Methylnaphthalene	ND	0.02	57	62	8.4				30 - 130	20	
Acenaphthene	ND	0.02	68	73	7.1				30 - 130	20	
Acenaphthylene	ND	0.02	68	69	1.5				30 - 130	20	
Anthracene	ND	0.02	73	80	9.2				30 - 130	20	
Benz(a)anthracene	0.04	0.02	74	82	10.3				30 - 130	20	
Benzo(a)pyrene	ND	0.02	67	73	8.6				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	74	80	7.8				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	69	74	7.0				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	73	82	11.6				30 - 130	20	
Bis(2-ethylhexyl)phthalate	0.12	0.10	72	75	4.1				30 - 130	20	
Chrysene	0.03	0.02	71	76	6.8				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	83	90	8.1				30 - 130	20	
Dibenzofuran	ND	0.05	64	70	9.0				30 - 130	20	
Fluoranthene	ND	0.02	74	81	9.0				30 - 130	20	
Fluorene	ND	0.02	71	77	8.1				30 - 130	20	
Hexachlorobenzene	ND	0.02	78	84	7.4				30 - 130	20	
Hexachlorobutadiene	ND	0.05	51	54	5.7				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	41	50	19.8				30 - 130	20	
Hexachloroethane	ND	0.05	45	51	12.5				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	75	82	8.9				30 - 130	20	
Naphthalene	ND	0.02	52	55	5.6				30 - 130	20	
Nitrobenzene	ND	0.05	59	64	8.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	91	100	9.4				30 - 130	20	
Pentachlorophenol	ND	0.20	114	137	18.3				30 - 130	20	I
Phenanthrene	ND	0.02	70	75	6.9				30 - 130	20	
Pyrene	ND	0.02	77	82	6.3				30 - 130	20	
Pyridine	ND	0.50	46	51	10.3				30 - 130	20	
% 2,4,6-Tribromophenol	102	%	102	113	10.2				15 - 110	20	I
% 2-Fluorobiphenyl	65	%	60	64	6.5				30 - 130	20	
% 2-Fluorophenol	48	%	32	34	6.1				15 - 110	20	
% Nitrobenzene-d5	72	%	57	65	13.1				30 - 130	20	
% Phenol-d5	53	%	41	42	2.4				15 - 110	20	
% Terphenyl-d14	85	%	79	87	9.6				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ40756)										
Semivolatiles - Water										
1,2,4-Trichlorobenzene	ND	3.5	59	61	3.3				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	48	52	8.0				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6	80	89	10.7				30 - 130	20
1,3-Dichlorobenzene	ND	1.0	47	50	6.2				30 - 130	20
1,4-Dichlorobenzene	ND	1.0	48	53	9.9				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0	83	91	9.2				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0	75	85	12.5				30 - 130	20
2,4-Dichlorophenol	ND	1.0	69	73	5.6				30 - 130	20
2,4-Dimethylphenol	ND	1.0	70	74	5.6				30 - 130	20
2,4-Dinitrophenol	ND	1.0	88	97	9.7				30 - 130	20
2,4-Dinitrotoluene	ND	3.5	87	97	10.9				30 - 130	20
2,6-Dinitrotoluene	ND	3.5	85	93	9.0				30 - 130	20
2-Chloronaphthalene	ND	3.5	71	80	11.9				30 - 130	20
2-Chlorophenol	ND	1.0	45	48	6.5				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0	59	62	5.0				30 - 130	20
2-Nitroaniline	ND	3.5	118	127	7.3				30 - 130	20
2-Nitrophenol	ND	1.0	61	65	6.3				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0	62	64	3.2				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0	84	78	7.4				30 - 130	20
3-Nitroaniline	ND	5.0	99	105	5.9				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0	90	101	11.5				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5	81	88	8.3				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0	83	86	3.6				30 - 130	20
4-Chloroaniline	ND	3.5	79	82	3.7				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0	84	93	10.2				30 - 130	20
4-Nitroaniline	ND	5.0	82	92	11.5				30 - 130	20
4-Nitrophenol	ND	1.0	89	95	6.5				15 - 130	20
Acetophenone	ND	3.5	59	62	5.0				30 - 130	20
Aniline	ND	3.5	60	63	4.9				30 - 130	20
Benzidine	ND	4.5	108	123	13.0				30 - 130	20
Benzoic acid	ND	10	52	52	0.0				30 - 130	20
Benzyl butyl phthalate	ND	1.5	86	92	6.7				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	69	73	5.6				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	43	47	8.9				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	47	50	6.2				30 - 130	20
Carbazole	ND	5.0	90	98	8.5				30 - 130	20
Diethyl phthalate	ND	1.5	85	94	10.1				30 - 130	20
Dimethylphthalate	ND	1.5	84	93	10.2				30 - 130	20
Di-n-butylphthalate	ND	1.5	90	99	9.5				30 - 130	20
Di-n-octylphthalate	ND	1.5	88	95	7.7				30 - 130	20
Isophorone	ND	3.5	68	73	7.1				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	47	49	4.2				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	66	71	7.3				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	77	87	12.2				30 - 130	20
Phenol	ND	1.0	46	43	6.7				15 - 130	20
% 2,4,6-Tribromophenol	69	%	93	102	9.2				15 - 110	20
% 2-Fluorobiphenyl	68	%	74	83	11.5				30 - 130	20
% 2-Fluorophenol	32	%	35	35	0.0				15 - 110	20
% Nitrobenzene-d5	56	%	57	60	5.1				30 - 130	20
% Phenol-d5	40	%	43	41	4.8				15 - 110	20

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% Terphenyl-d14	77	%		95	103	8.1				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 410046 (ug/kg), QC Sample No: BZ39584 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)

Volatiles - Sediment

1,1,1,2-Tetrachloroethane	ND	5.0	103	97	6.0	75			70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	104	99	4.9	71			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	89	9.6	87			70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	90	8.5	85			70 - 130	30	
1,1-Dichloroethane	ND	5.0	104	99	4.9	79			70 - 130	30	
1,1-Dichloroethene	ND	5.0	99	96	3.1	69			70 - 130	30	m
1,1-Dichloropropene	ND	5.0	104	99	4.9	73			70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	100	89	11.6	79			70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	93	86	7.8	86			70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	98	86	13.0	74			70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	102	92	10.3	75			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	101	92	9.3	71			70 - 130	30	
1,2-Dibromoethane	ND	5.0	99	90	9.5	86			70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	98	89	9.6	78			70 - 130	30	
1,2-Dichloroethane	ND	5.0	99	92	7.3	84			70 - 130	30	
1,2-Dichloropropane	ND	5.0	103	96	7.0	80			70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	102	93	9.2	74			70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	102	91	11.4	76			70 - 130	30	
1,3-Dichloropropane	ND	5.0	97	90	7.5	84			70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	99	89	10.6	76			70 - 130	30	
2,2-Dichloropropane	ND	5.0	104	105	1.0	73			70 - 130	30	
2-Chlorotoluene	ND	5.0	101	92	9.3	74			70 - 130	30	
2-Hexanone	ND	25	81	78	3.8	75			70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	95	9.0	75			70 - 130	30	
4-Chlorotoluene	ND	5.0	102	92	10.3	75			70 - 130	30	
4-Methyl-2-pentanone	ND	25	95	87	8.8	86			70 - 130	30	
Acetone	ND	10	82	72	13.0	67			70 - 130	30	m
Acrylonitrile	ND	5.0	93	91	2.2	95			70 - 130	30	
Benzene	ND	1.0	102	97	5.0	77			70 - 130	30	
Bromobenzene	ND	5.0	97	89	8.6	77			70 - 130	30	
Bromochloromethane	ND	5.0	101	94	7.2	82			70 - 130	30	
Bromodichloromethane	ND	5.0	105	99	5.9	73			70 - 130	30	
Bromoform	ND	5.0	99	92	7.3	71			70 - 130	30	
Bromomethane	ND	5.0	132	123	7.1	72			70 - 130	30	l
Carbon Disulfide	ND	5.0	114	110	3.6	57			70 - 130	30	m
Carbon tetrachloride	ND	5.0	104	101	2.9	62			70 - 130	30	m
Chlorobenzene	ND	5.0	98	90	8.5	76			70 - 130	30	
Chloroethane	ND	5.0	113	107	5.5	18			70 - 130	30	m
Chloroform	ND	5.0	96	92	4.3	75			70 - 130	30	
Chloromethane	ND	5.0	115	109	5.4	84			70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	98	5.0	79			70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	108	100	7.7	78			70 - 130	30	
Dibromochloromethane	ND	3.0	110	101	8.5	78			70 - 130	30	
Dibromomethane	ND	5.0	98	92	6.3	81			70 - 130	30	
Dichlorodifluoromethane	ND	5.0	124	121	2.4	87			70 - 130	30	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Ethylbenzene	ND	1.0	99	93	6.3	74			70 - 130	30	
Hexachlorobutadiene	ND	5.0	101	93	8.2	71			70 - 130	30	
Isopropylbenzene	ND	1.0	104	97	7.0	73			70 - 130	30	
m&p-Xylene	ND	2.0	99	93	6.3	73			70 - 130	30	
Methyl ethyl ketone	ND	5.0	88	84	4.7	88			70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	90	83	8.1	82			70 - 130	30	
Methylene chloride	ND	5.0	91	84	8.0	75			70 - 130	30	
Naphthalene	ND	5.0	105	93	12.1	86			70 - 130	30	
n-Butylbenzene	ND	1.0	109	99	9.6	75			70 - 130	30	
n-Propylbenzene	ND	1.0	103	94	9.1	72			70 - 130	30	
o-Xylene	ND	2.0	107	97	9.8	80			70 - 130	30	
p-Isopropyltoluene	ND	1.0	107	98	8.8	74			70 - 130	30	
sec-Butylbenzene	ND	1.0	110	102	7.5	77			70 - 130	30	
Styrene	ND	5.0	103	96	7.0	81			70 - 130	30	
tert-Butylbenzene	ND	1.0	104	97	7.0	74			70 - 130	30	
Tetrachloroethene	ND	5.0	103	96	7.0	70			70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	88	84	4.7	90			70 - 130	30	
Toluene	ND	1.0	101	95	6.1	76			70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	104	99	4.9	75			70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	104	95	9.0	77			70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	105	94	11.1	79			70 - 130	30	
Trichloroethene	ND	5.0	102	96	6.1	72			70 - 130	30	
Trichlorofluoromethane	ND	5.0	105	103	1.9	27			70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	94	89	5.5	69			70 - 130	30	m
Vinyl chloride	ND	5.0	116	112	3.5	77			70 - 130	30	
% 1,2-dichlorobenzene-d4	104	%	100	102	2.0	102			70 - 130	30	
% Bromofluorobenzene	96	%	99	101	2.0	98			70 - 130	30	
% Dibromofluoromethane	98	%	98	99	1.0	99			70 - 130	30	
% Toluene-d8	97	%	101	103	2.0	100			70 - 130	30	

Comment:

The MSD is not reported for this batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 410071 (ug/L), QC Sample No: BZ40435 (BZ40756)

Volatiles - Water

1,1,1,2-Tetrachloroethane	ND	1.0	90	90	0.0	100	103	3.0	70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	90	92	2.2	107	107	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	95	98	3.1	108	113	4.5	70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	91	96	5.3	105	107	1.9	70 - 130	30	
1,1-Dichloroethane	ND	1.0	94	95	1.1	109	110	0.9	70 - 130	30	
1,1-Dichloroethene	ND	1.0	99	99	0.0	122	119	2.5	70 - 130	30	
1,1-Dichloropropene	ND	1.0	95	96	1.0	111	113	1.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	102	104	1.9	64	94	38.0	70 - 130	30	m,r
1,2,3-Trichloropropane	ND	1.0	93	94	1.1	105	108	2.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	94	94	0.0	71	85	17.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	88	89	1.1	99	100	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	100	99	1.0	98	111	12.4	70 - 130	30	
1,2-Dibromoethane	ND	1.0	93	95	2.1	103	108	4.7	70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	90	93	3.3	99	103	4.0	70 - 130	30	
1,2-Dichloroethane	ND	1.0	93	97	4.2	104	108	3.8	70 - 130	30	
1,2-Dichloropropane	ND	1.0	94	96	2.1	107	107	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	89	91	2.2	102	102	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	89	91	2.2	100	103	3.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3-Dichloropropane	ND	1.0	93	97	4.2	106	110	3.7	70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	90	91	1.1	100	103	3.0	70 - 130	30	
2,2-Dichloropropane	ND	1.0	88	88	0.0	91	91	0.0	70 - 130	30	
2-Chlorotoluene	ND	1.0	89	89	0.0	101	102	1.0	70 - 130	30	
2-Hexanone	ND	5.0	96	101	5.1	102	110	7.5	70 - 130	30	
2-Isopropyltoluene	ND	1.0	94	95	1.1	106	108	1.9	70 - 130	30	
4-Chlorotoluene	ND	1.0	88	88	0.0	101	100	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	95	97	2.1	107	109	1.9	70 - 130	30	
Acetone	ND	5.0	96	96	0.0	75	82	8.9	70 - 130	30	
Acrylonitrile	ND	5.0	99	108	8.7	115	121	5.1	70 - 130	30	
Benzene	ND	0.70	92	93	1.1	105	106	0.9	70 - 130	30	
Bromobenzene	ND	1.0	89	89	0.0	101	101	0.0	70 - 130	30	
Bromochloromethane	ND	1.0	93	97	4.2	107	109	1.9	70 - 130	30	
Bromodichloromethane	ND	0.50	90	94	4.3	102	105	2.9	70 - 130	30	
Bromoform	ND	1.0	84	86	2.4	90	96	6.5	70 - 130	30	
Bromomethane	ND	1.0	110	115	4.4	84	111	27.7	70 - 130	30	
Carbon Disulfide	ND	1.0	107	107	0.0	131	128	2.3	70 - 130	30	m
Carbon tetrachloride	ND	1.0	90	91	1.1	106	107	0.9	70 - 130	30	
Chlorobenzene	ND	1.0	91	92	1.1	102	105	2.9	70 - 130	30	
Chloroethane	ND	1.0	106	107	0.9	133	130	2.3	70 - 130	30	m
Chloroform	ND	1.0	90	93	3.3	106	107	0.9	70 - 130	30	
Chloromethane	ND	1.0	97	98	1.0	114	113	0.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	92	94	2.2	107	104	2.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	92	95	3.2	103	105	1.9	70 - 130	30	
Dibromochloromethane	ND	0.50	92	93	1.1	101	106	4.8	70 - 130	30	
Dibromomethane	ND	1.0	93	95	2.1	104	107	2.8	70 - 130	30	
Dichlorodifluoromethane	ND	1.0	123	124	0.8	131	131	0.0	70 - 130	30	m
Ethylbenzene	ND	1.0	91	91	0.0	104	104	0.0	70 - 130	30	
Hexachlorobutadiene	ND	0.40	91	92	1.1	85	93	9.0	70 - 130	30	
Isopropylbenzene	ND	1.0	90	89	1.1	103	103	0.0	70 - 130	30	
m&p-Xylene	ND	1.0	96	97	1.0	109	110	0.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	103	109	5.7	116	120	3.4	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	97	101	4.0	110	114	3.6	70 - 130	30	
Methylene chloride	ND	1.0	98	102	4.0	102	103	1.0	70 - 130	30	
Naphthalene	ND	1.0	105	108	2.8	73	97	28.2	70 - 130	30	
n-Butylbenzene	ND	1.0	91	90	1.1	102	103	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	90	89	1.1	103	102	1.0	70 - 130	30	
o-Xylene	ND	1.0	92	94	2.2	105	106	0.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	91	91	0.0	103	104	1.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	96	95	1.0	110	111	0.9	70 - 130	30	
Styrene	ND	1.0	91	94	3.2	102	105	2.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	91	90	1.1	104	104	0.0	70 - 130	30	
Tetrachloroethene	ND	1.0	91	91	0.0	101	103	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	92	99	7.3	107	111	3.7	70 - 130	30	
Toluene	ND	1.0	92	92	0.0	105	105	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	90	91	1.1	105	106	0.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	88	91	3.4	97	101	4.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	87	88	1.1	90	92	2.2	70 - 130	30	
Trichloroethene	ND	1.0	90	92	2.2	103	104	1.0	70 - 130	30	
Trichlorofluoromethane	ND	1.0	111	111	0.0	135	129	4.5	70 - 130	30	m
Trichlorotrifluoroethane	ND	1.0	114	113	0.9	126	124	1.6	70 - 130	30	
Vinyl chloride	ND	1.0	101	103	2.0	124	121	2.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	100	0.0	101	101	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% Bromofluorobenzene	101	%		100	101	1.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	94	%		98	97	1.0	99	102	3.0	70 - 130	30	
% Toluene-d8	106	%		102	102	0.0	103	102	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 409550 (ug/kg), QC Sample No: BZ40876 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)												
Semivolatiles - Sediment												
1,2,4,5-Tetrachlorobenzene	ND	230		62	63	1.6	54	57	5.4	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230		58	63	8.3	54	55	1.8	30 - 130	30	
1,2-Dichlorobenzene	ND	180		52	60	14.3	50	51	2.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230		73	68	7.1	64	70	9.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230		50	56	11.3	47	49	4.2	30 - 130	30	
1,4-Dichlorobenzene	ND	230		52	58	10.9	48	51	6.1	30 - 130	30	
2,4,5-Trichlorophenol	ND	230		67	66	1.5	60	63	4.9	30 - 130	30	
2,4,6-Trichlorophenol	ND	130		63	63	0.0	58	63	8.3	30 - 130	30	
2,4-Dichlorophenol	ND	130		61	62	1.6	55	59	7.0	30 - 130	30	
2,4-Dimethylphenol	ND	230		63	63	0.0	56	60	6.9	30 - 130	30	
2,4-Dinitrophenol	ND	230		21	11	62.5	23	23	0.0	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	130		71	69	2.9	62	65	4.7	30 - 130	30	
2,6-Dinitrotoluene	ND	130		68	66	3.0	63	66	4.7	30 - 130	30	
2-Chloronaphthalene	ND	230		67	66	1.5	60	65	8.0	30 - 130	30	
2-Chlorophenol	ND	230		54	59	8.8	53	55	3.7	30 - 130	30	
2-Methylnaphthalene	ND	230		61	61	0.0	56	61	8.5	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230		58	59	1.7	53	56	5.5	30 - 130	30	
2-Nitroaniline	ND	330		81	77	5.1	78	87	10.9	30 - 130	30	
2-Nitrophenol	ND	230		56	57	1.8	53	59	10.7	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230		63	62	1.6	59	63	6.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130		65	66	1.5	61	65	6.3	30 - 130	30	
3-Nitroaniline	ND	330		73	71	2.8	67	73	8.6	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230		50	33	41.0	33	32	3.1	30 - 130	30	r
4-Bromophenyl phenyl ether	ND	230		68	66	3.0	58	62	6.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230		67	64	4.6	60	64	6.5	30 - 130	30	
4-Chloroaniline	ND	230		55	57	3.6	53	56	5.5	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230		70	66	5.9	58	62	6.7	30 - 130	30	
4-Nitroaniline	ND	230		68	64	6.1	61	69	12.3	30 - 130	30	
4-Nitrophenol	ND	230		67	66	1.5	60	64	6.5	30 - 130	30	
Acenaphthene	ND	230		74	71	4.1	65	71	8.8	30 - 130	30	
Acenaphthylene	ND	130		68	66	3.0	58	63	8.3	30 - 130	30	
Acetophenone	ND	230		55	58	5.3	52	54	3.8	30 - 130	30	
Aniline	ND	330		46	52	12.2	40	43	7.2	30 - 130	30	
Anthracene	ND	230		72	70	2.8	64	70	9.0	30 - 130	30	
Benz(a)anthracene	ND	230		69	67	2.9	58	63	8.3	30 - 130	30	
Benzidine	ND	330		41	43	4.8	16	17	6.1	30 - 130	30	m
Benzo(a)pyrene	ND	130		67	63	6.2	50	55	9.5	30 - 130	30	
Benzo(b)fluoranthene	ND	160		72	64	11.8	56	61	8.5	30 - 130	30	
Benzo(ghi)perylene	ND	230		71	66	7.3	38	44	14.6	30 - 130	30	
Benzo(k)fluoranthene	ND	230		73	73	0.0	56	64	13.3	30 - 130	30	
Benzoic Acid	ND	330		11	<10	NC	30	34	12.5	30 - 130	30	l
Benzyl butyl phthalate	ND	230		65	64	1.6	65	69	6.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230		67	68	1.5	57	61	6.8	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130		51	57	11.1	46	48	4.3	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230		46	50	8.3	48	51	6.1	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bis(2-ethylhexyl)phthalate	ND	230	63	60	4.9	61	67	9.4	30 - 130	30	
Carbazole	ND	230	72	70	2.8	63	68	7.6	30 - 130	30	
Chrysene	ND	230	74	70	5.6	60	63	4.9	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	71	68	4.3	54	60	10.5	30 - 130	30	
Dibenzofuran	ND	230	70	68	2.9	61	67	9.4	30 - 130	30	
Diethyl phthalate	ND	230	70	69	1.4	63	67	6.2	30 - 130	30	
Dimethylphthalate	ND	230	71	68	4.3	61	66	7.9	30 - 130	30	
Di-n-butylphthalate	ND	670	73	71	2.8	63	68	7.6	30 - 130	30	
Di-n-octylphthalate	ND	230	58	57	1.7	63	68	7.6	30 - 130	30	
Fluoranthene	ND	230	72	70	2.8	55	58	5.3	30 - 130	30	
Fluorene	ND	230	71	69	2.9	63	68	7.6	30 - 130	30	
Hexachlorobenzene	ND	130	67	66	1.5	60	69	14.0	30 - 130	30	
Hexachlorobutadiene	ND	230	54	59	8.8	48	51	6.1	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	55	55	0.0	<10	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	44	50	12.8	36	38	5.4	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	64	60	6.5	43	49	13.0	30 - 130	30	
Isophorone	ND	130	61	61	0.0	53	57	7.3	30 - 130	30	
Naphthalene	ND	230	61	64	4.8	58	61	5.0	30 - 130	30	
Nitrobenzene	ND	130	57	60	5.1	56	59	5.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	54	60	10.5	42	44	4.7	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	61	63	3.2	55	58	5.3	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	73	70	4.2	62	67	7.8	30 - 130	30	
Pentachloronitrobenzene	ND	230	69	64	7.5	58	63	8.3	30 - 130	30	
Pentachlorophenol	ND	230	60	58	3.4	54	60	10.5	30 - 130	30	
Phenanthrene	ND	130	72	69	4.3	58	63	8.3	30 - 130	30	
Phenol	ND	230	60	63	4.9	54	58	7.1	30 - 130	30	
Pyrene	ND	230	73	71	2.8	55	58	5.3	30 - 130	30	
Pyridine	ND	230	42	46	9.1	34	36	5.7	30 - 130	30	
% 2,4,6-Tribromophenol	62	%	68	66	3.0	66	71	7.3	30 - 130	30	
% 2-Fluorobiphenyl	73	%	70	69	1.4	62	66	6.3	30 - 130	30	
% 2-Fluorophenol	59	%	55	61	10.3	49	52	5.9	30 - 130	30	
% Nitrobenzene-d5	61	%	58	60	3.4	57	59	3.4	30 - 130	30	
% Phenol-d5	61	%	59	63	6.6	56	58	3.5	30 - 130	30	
% Terphenyl-d14	80	%	73	72	1.4	60	63	4.9	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 409613 (mg/Kg), QC Sample No: BZ41146 (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754)

TPH by GC (Extractable Products) - Sediment

Ext. Petroleum H.C. (C9-C36)	ND	50	82	91	10.4	86	100	15.1	60 - 120	30	
% n-Pentacosane	76	%	79	112	34.6	82	122	39.2	50 - 150	30	r

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 409632 (ug/L), QC Sample No: BZ41294 (BZ40756)

Polychlorinated Biphenyls - Water

PCB-1016	ND	0.050	101	108	6.7				40 - 140	20	
PCB-1221	ND	0.050							40 - 140	20	
PCB-1232	ND	0.050							40 - 140	20	
PCB-1242	ND	0.050							40 - 140	20	
PCB-1248	ND	0.050							40 - 140	20	
PCB-1254	ND	0.050							40 - 140	20	

QA/QC Data

SDG I.D.: GBZ40749

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1260	ND	0.050	96	106	9.9				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	106	%	98	106	7.8				30 - 150	20
% TCMX (Surrogate Rec)	93	%	95	101	6.1				30 - 150	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 409939 (mg/L), QC Sample No: BZ42103 (BZ40756)

TPH by GC (Extractable Products) - Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	78	72	8.0	80	80	0.0	60 - 120	30
% n-Pentacosane	75	%	84	79	6.1	80	85	6.1	50 - 150	20

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 409703 (mg/Kg), QC Sample No: BZ42315 (BZ40755)

TPH by GC (Extractable Products) - Sediment

Ext. Petroleum H.C. (C9-C36)	ND	50	92	91	1.1	95	88	7.7	60 - 120	30
% n-Pentacosane	70	%	75	80	6.5	77	74	4.0	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 410478 (ug/Kg), QC Sample No: BZ44759 2X (BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755)

Polychlorinated Biphenyls - Sediment

PCB-1016	ND	33	76	68	11.1	64	74	14.5	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	87	77	12.2	67	76	12.6	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	86	%	108	102	5.7	86	93	7.8	30 - 150	30
% TCMX (Surrogate Rec)	70	%	84	79	6.1	73	79	7.9	30 - 150	30

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 27, 2017

Monday, November 27, 2017

Criteria: None

State: CT

Sample Criteria Exceedances Report

GBZ40749 - TIGHE-DAS

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 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:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

Laboratory Sample ID(s): BZ40749-BZ40756 ***Sampling Date(s):*** 11/13/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7000, 7470/7471, 8082, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: ETPH Narration, ICP Narration, SVOA Narration, SVOASIM Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee **Position:** Project Manager

Printed Name: Ethan Lee **Date:** Monday, November 27, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

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Certification Report

November 27, 2017

SDG I.D.: GBZ40749

AA Metals (TL) Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

PE600-2 11/14/17 14:04 Rick Schweitzer, Chemist 11/14/17

BZ40756

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The CRDL met criteria.
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 samples did not meet analytical spike criteria: None.

QC (Batch Specific):

Batch 409412 (BZ40141)

BZ40756

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/14/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/14/17

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755, BZ40756

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 409417 (BZ40716)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

Batch 409425 (BZ39271)

BZ40756

All LCS recoveries were within 90 - 110 with the following exceptions: None.

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November 27, 2017

SDG I.D.: GBZ40749

Cyanide Narration

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409613 (Samples: BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754): -----

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% n-Pentacosane)

Instrument:

AU-FID1 11/15/17-1 Jeff Bucko, Chemist 11/15/17

BZ40751, BZ40752

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID1 11/16/17-1 Jeff Bucko, Chemist 11/16/17

BZ40749, BZ40750, BZ40753

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID1 11/20/17-1 Jeff Bucko, Chemist 11/20/17

BZ40755

The initial calibration (ETPHO18I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 11/15/17-1 Jeff Bucko, Chemist 11/15/17

BZ40754

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 11/17/17-1 Jeff Bucko, Chemist 11/17/17

BZ40756

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 409613 (BZ41146)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754

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: % n-Pentacosane(34.6%)
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 409703 (BZ42315)

BZ40755

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SDG I.D.: GBZ40749

ETPH Narration

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.

Batch 409939 (BZ42103)

BZ40756

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/14/17 07:51 Rick Schweitzer, Chemist 11/14/17

BZ40756

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 11/15/17 07:58 Rick Schweitzer, Chemist 11/15/17

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

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 409475 (BZ40032)

BZ40756

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-

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November 27, 2017

SDG I.D.: GBZ40749

Mercury Narration

125%.

QC (Site Specific):

Batch 409657 (BZ40749)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 409587 (Samples: BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755): -----

The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Barium, Chromium, Copper)

Instrument:

ARCOS 11/15/17 10:24 Mike Arsenault, Chemist 11/15/17

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 11/16/17 08:55 Mike Arsenault, Chemist 11/16/17

BZ40754

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

BLUE 11/15/17 07:12 Mike Arsenault, Chemist 11/15/17

BZ40756

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

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SDG I.D.: GBZ40749

ICP Metals Narration

The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 409594 (BZ40979)

BZ40756

All LCS recoveries were within 75 - 125 with the following exceptions: None.

QC (Site Specific):

Batch 409587 (BZ40749)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD24 11/15/17-1 Adam Werner, Chemist 11/15/17

BZ40756

The initial calibration (PC1103AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1103BI) 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-ECD24 11/22/17-1 Adam Werner, Chemist 11/22/17

BZ40749, BZ40750

The initial calibration (PC1103AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1103BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD5 11/22/17-1 Adam Werner, Chemist 11/22/17

BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

The initial calibration (PC1110AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1110BI) 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 409632 (BZ41294)

BZ40756

All LCS recoveries were within 40 - 140 with the following exceptions: None.

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SDG I.D.: GBZ40749

PCB Narration

All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 410478 (BZ44759)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409550 (Samples: BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (Benzoic Acid)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (2,4-Dinitrophenol, 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)

Instrument:

CHEM05 11/14/17-1 Damien Drobinski, Chemist 11/14/17

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

Initial Calibration Verification (CHEM05/SPLIT_1110):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2-Nitroaniline 21% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.078 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/1114_32-SPLIT_1110):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.073 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 11/20/17-1 Damien Drobinski, Chemist 11/20/17

BZ40749

Initial Calibration Verification (CHEM27/SPLIT_1115):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

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SDG I.D.: GBZ40749

SVOA Narration

Continuing Calibration Verification (CHEM27/1120_02-SPLIT_1115):
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.

CHEM29 11/17/17-1 Damien Drobinski, Chemist 11/17/17

BZ40756

Initial Calibration Verification (CHEM29/SPLIT_1115):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dimethylphenol 24% (20%), 2-Nitroaniline 21% (20%), 2-Nitrophenol 25% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/1117_02-SPLIT_1115):
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: 2-Nitrophenol 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409550 (BZ40876)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(21%), Benzoic Acid(11%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 2,4-Dinitrophenol(62.5%), 4,6-Dinitro-2-methylphenol(41.0%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 409565 (BZ39299)

BZ40756

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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SDG I.D.: GBZ40749

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409565 (Samples: BZ40756): -----

A trace amount of an analyte was found in blank but were not reported in the sample(s), therefore no bias is suspected. (Benz(a)anthracene, Bis(2-ethylhexyl)phthalate, Chrysene)

One or more surrogates is outside of criteria. (% 2,4,6-Tribromophenol)

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Pentachlorophenol)

Instrument:

CHEM07 11/16/17-1 Damien Drobinski, Chemist 11/16/17

BZ40756

Initial Calibration Verification (CHEM07/SIM_1025):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1116_02-SIM_1025):
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 409565 (BZ39299)

BZ40756

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: % 2,4,6-Tribromophenol(113%), Pentachlorophenol(137%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 410046 (Samples: BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Bromomethane)

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RCP Certification Report

November 27, 2017

SDG I.D.: GBZ40749

VOA Narration

Instrument:

CHEM02 11/16/17-2 Michael Hahn, Chemist 11/16/17

BZ40756

Initial Calibration Verification (CHEM02/VT-P1112):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 37% (20%), Acrylonitrile 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.020 (0.05), 2-Hexanone 0.048 (0.1), 4-Methyl-2-pentanone 0.070 (0.1), Acetone 0.032 (0.1), Acrylonitrile 0.034 (0.05), Bromoform 0.080 (0.1), Methyl ethyl ketone 0.045 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1116P26-VT-P1112):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.208 (0.3), 1,2-Dibromo-3-chloropropane 0.020 (0.05), Acrylonitrile 0.034 (0.05), Bromoform 0.069 (0.1), Tetrahydrofuran (THF) 0.029 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM14 11/14/17-1 Jane Li, Chemist 11/14/17

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

Initial Calibration Verification (CHEM14/VT-1111):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 22% (20%), Naphthalene 27% (20%), trans-1,4-dichloro-2-butene 28% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/1114_02-VT-1111):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Acetone 31%H (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.

QC (Batch Specific):

Batch 410046 (BZ39584)

BZ40749, BZ40750, BZ40751, BZ40752, BZ40753, BZ40754, BZ40755

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(132%)
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.
The MSD is not reported for this batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 410071 (BZ40435)

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

November 27, 2017

SDG I.D.: GBZ40749

VOA Narration

BZ40756

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.0C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 1.0 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
☐ Fax #:
☒ Email: emurray@tylebond.com

Customer: Tyle + Bond
Address: 213 Court St
Suite 1100
Middletown CT

Project: Redmine MGP
Report to: Lynn Murray
Invoice to: Tyle + Bond
Phone #:
Fax #:

Project P.O: 14-0785-0404

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/13/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	1,4 Dioxane	RCP Metals	PCBs	TCL	Target TICs	Soil VOA Vials ☐ methanol [ ] H2O	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 [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
40749	SED-01	SE	11/13/17	13:45	X	X	X	X	X	X	X					3	2								
40750	SED-02			13:10	X	X	X	X	X	X	X	X				3	2/1								
40751	SED-03			11:45	X	X	X	X	X	X	X					3	2								
40752	SED-04			11:40	X	X	X	X	X	X	X					3	2								
40753	SED-05			12:50	X	X	X	X	X	X	X					3	2								
40754	SED-06			12:30	X	X	X	X	X	X	X					3	2								
40755	SED-DUP			13:11	X	X	X	X	X	X	X					3	2								
40756	EQ-BLANK-2	L		14:40	X	X	X	X	X	X								3	3		1	1			

Relinquished by:	Accepted by:	Date:	Time:
[signature]	Attuadino	11/13/17	1739

Comments, Special Requirements or Regulations:
Quote: TEQ517BA
DAS Pricing

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 Redlab

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

Page 68 of 75

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
Page 944 of 1005

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Tuesday, November 14, 2017 10:45 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ40749, ROCKVILLE MGP - COC Acknowledgement- Hold PCBs

Dear Phoenix:

Please hold the PCB analysis for sediments.

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Monday, November 13, 2017 10:29 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ40749, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Delivery group GBZ40749 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
BZ40749	SED-01
BZ40750	SED-02
BZ40751	SED-03
BZ40752	SED-04
BZ40753	SED-05
BZ40754	SED-06
BZ40755	SED-DUP
BZ40756	EQ BLANK 2

The samples in this delivery group were received at 1.0°C. (Note acceptance criteria is above freezing up to 6°C)

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Monday, November 20, 2017 9:22 AM
To: Client Services
Subject: RE: Phoenix Labs - GBZ40749, ROCKVILLE MGP - COC Acknowledgement- Aanalyze PCBs

Dear Phoenix.

Please run PCBs on the sediments. We have a detection on-site in soils based upon the preliminary results provided.

Thanks.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: Lynn E. Willey
Sent: Tuesday, November 14, 2017 10:45 AM
To: 'clientservices@phoenixlabs.com' <clientservices@phoenixlabs.com>
Subject: RE: Phoenix Labs - GBZ40749, ROCKVILLE MGP - COC Acknowledgement- Hold PCBs

Dear Phoenix:

Please hold the PCB analysis for sediments.

Thank you.

Lynn E. Willey, LEP | Senior Environmental Scientist
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT, 06457
| 860.852.5214 | 860-729-7502 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

From: clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]
Sent: Monday, November 13, 2017 10:29 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GBZ40749, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Delivery group GBZ40749 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
BZ40749	SED-01
BZ40750	SED-02
BZ40751	SED-03
BZ40752	SED-04

BZ40753	SED-05
BZ40754	SED-06
BZ40755	SED-DUP
BZ40756	EQ BLANK 2

The samples in this delivery group were received at 1.0°C. (Note acceptance criteria is above freezing up to 6°C)

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.

GRAIN SIZE DISTRIBUTION TEST DATA

11/18/2017

Client: : Phoenix Environmental laboratories, Inc
Project: : In House Testing
Location: Offiste (BZ-40750)
Depth: N/A
Material Description: Fine to mediumm sand trace gravel, trace fines
Liquid Limit: N/A
USCS Classification: SP
Testing Remarks: ASTM C 136, C 117 (Client ID= 40750)
Tested by: IC

Date: 11/18/2017

Date: 11/18/2017
Sample Number: 721-17
Plastic Limit: N/A
AASHTO Classification: N/A
Checked by: HC

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 1257.30
Tare Wt. = 0.00
Minus #200 from wash = 1.4%

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer	Percent Retained
1274.80	0.00	0.00	3/4"	0.00	100.0	0.0
			1/4"	16.10	98.7	1.3
			#4	31.70	97.5	2.5
			#10	148.60	88.3	11.7
			#40	1034.00	18.9	81.1
			#100	1253.50	1.7	98.3
			#200	1256.80	1.4	98.6

Fraction Components

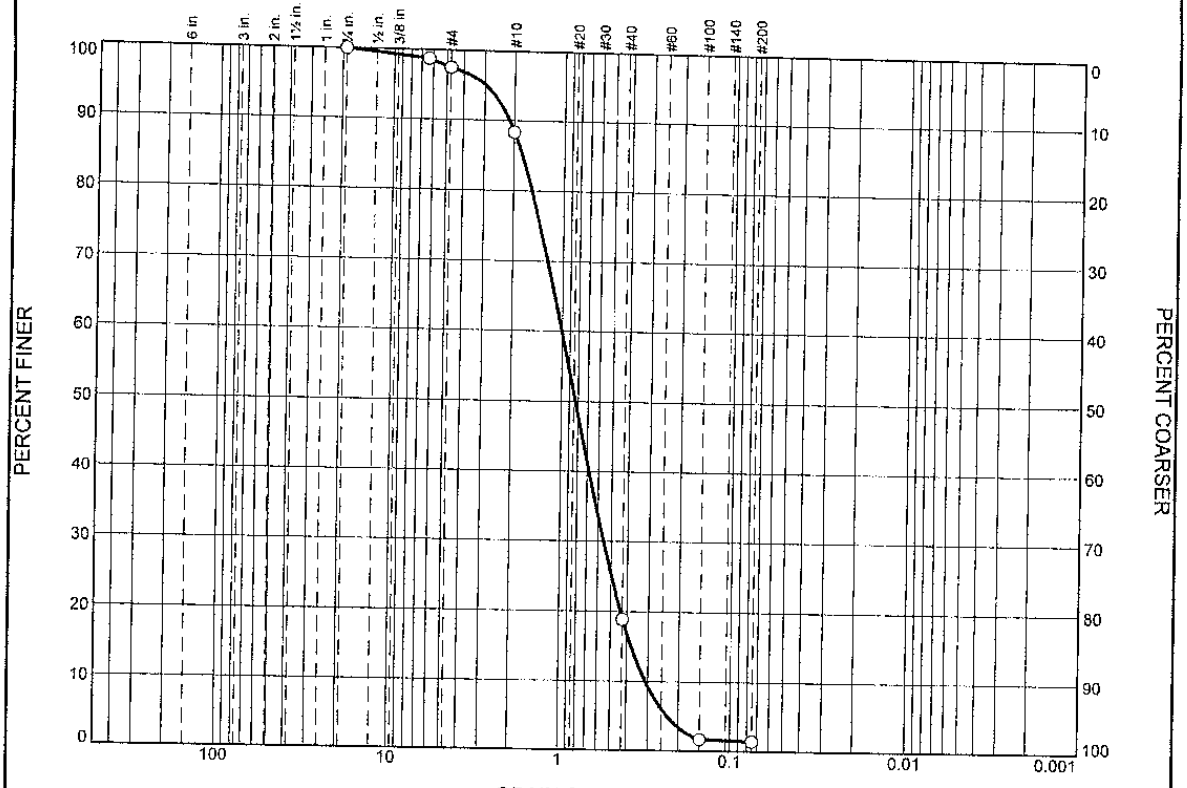
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.5	2.5	9.2	69.4	17.5	96.1			1.4

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.2328	0.3113	0.3773	0.4383	0.5570	0.6850	0.8322	1.0100	1.5574	1.7881	2.1383	2.9501

Fineness Modulus	C_u	C_c
2.99	3.24	0.99

Tri State Materials Testing Lab

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.5	9.2	69.4	17.5	1.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	N/A	N/A	1.7881	1.0100	0.8322	0.5570	0.3773	0.3113	0.99	3.24

Material Description	USCS	AASHTO
○ Fine to mediumn sand trace gravel, trace fines	SP	N/A

Project No. **Client:** : Phoenix Environmental laboratories, Inc
Project: : In House Testing

○ **Source:** Offiste (BZ-40750) Date: 11/18/2017

Remarks:
○ ASTM C 136, C 117 (Client ID= 40750)

Tri State Materials Testing Lab

Wallingford, Connecticut

Figure

Tested By: IC **Checked By:** HC

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Coolant: IPK ☐ ICE ☐ No ☐ Temp °C Pg of

Data Delivery:
☐ Fax #
☐ Email

Project P.O.:

To Customer: Tri State Materials Testing Lab
Address:

Project:
Report to: Bobbi Aloisa
Invoice to:
Phone #:
Fax #:

Client Sample - Information - Identification

Sampler's Signature _____ Date _____

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: Sieve	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container [ ] oz [ ] oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
BZ40750		S	11-13-17	13:10	X										3202 Jar

This section MUST be completed with Bottle Quantities.

Relinquished by: Holly Bailey
Accepted by:
Date: 11-14-17
Time: 10:20

Comments, Special Requirements or Regulations:

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

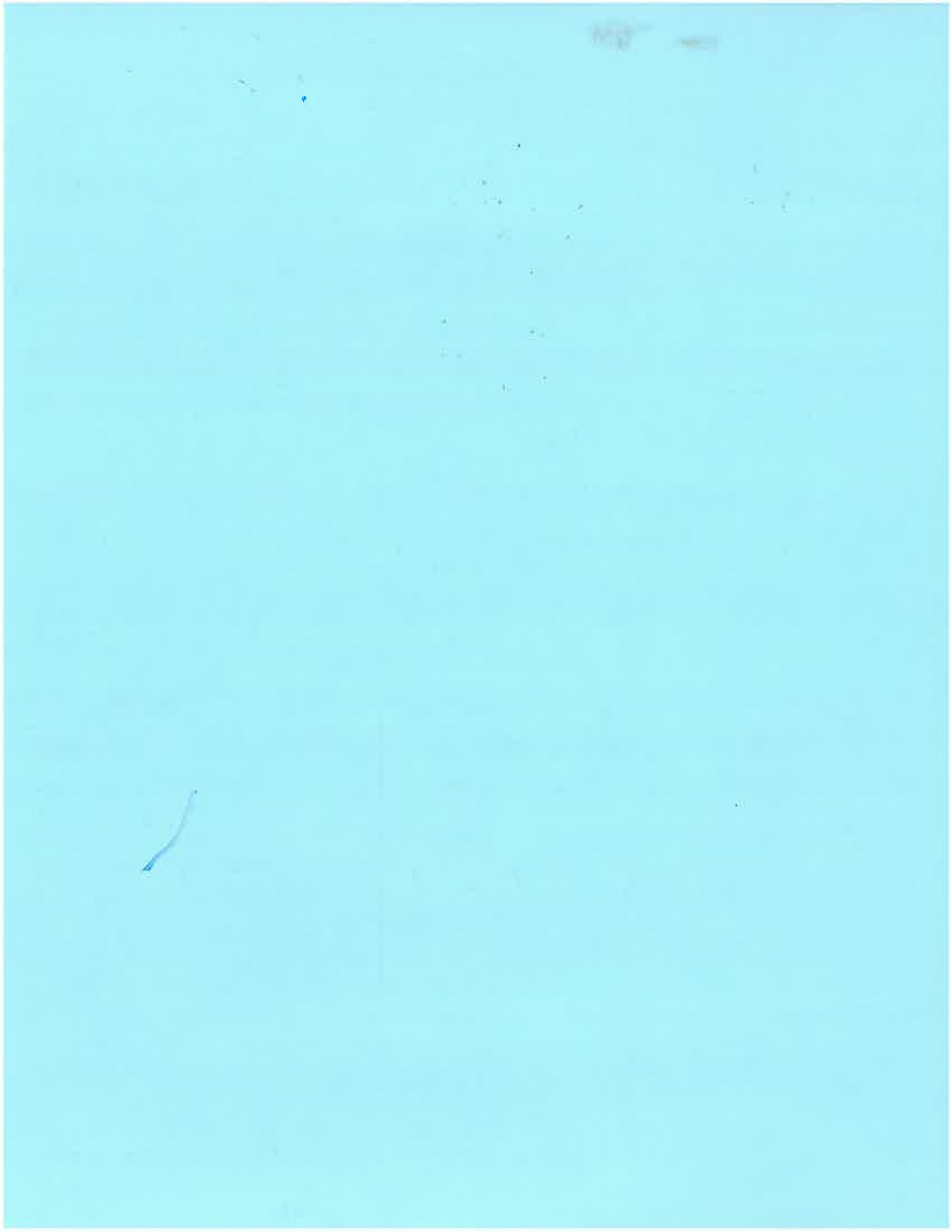
CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

State where samples were collected: CT



PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 21, 2017

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: BZ40757 - BZ40762

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	13:45
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40757

Project ID: ROCKVILLE MGP
Client ID: SW-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C
Barium	0.050	0.002	mg/L	1	11/15/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium (Dissolved)	0.046	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium (Dissolved)	0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/14/17	MA	E200.7-4.4
Thallium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc (Dissolved)	0.004	0.002	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-01

Phoenix I.D.: BZ40757

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Dissolved Digestion	Completed				11/14/17	Q/W	SW7470A
Mercury Digestion	Completed				11/14/17	QW/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Dissolved Metals Preparation	Completed				11/13/17	AG	SW3005A
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	11/18/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-01

Phoenix I.D.: BZ40757

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	107		%	1	11/17/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-01

Phoenix I.D.: BZ40757

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	74		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	70		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	52		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	78		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-01

Phoenix I.D.: BZ40757

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Methylnaphthalene	ND	0.94	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	90		%	1	11/16/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	73		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	54		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	73		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	57		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	92		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: SW-01

Phoenix I.D.: BZ40757

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	12:20
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40758

Project ID: ROCKVILLE MGP
Client ID: SW-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C
Barium	0.053	0.002	mg/L	1	11/15/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium (Dissolved)	0.056	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium (Dissolved)	0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/14/17	MA	E200.7-4.4
Thallium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc (Dissolved)	0.004	0.002	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-02

Phoenix I.D.: BZ40758

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Dissolved Digestion	Completed				11/14/17	Q/W	SW7470A
Mercury Digestion	Completed				11/14/17	QW/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Dissolved Metals Preparation	Completed				11/13/17	AG	SW3005A
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	11/18/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SW-02

Phoenix I.D.: BZ40758

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	106		%	1	11/17/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-02

Phoenix I.D.: BZ40758

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.7	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.97	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	35		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	55		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	41		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	74		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-02

Phoenix I.D.: BZ40758

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Methylnaphthalene	ND	0.97	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.78	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	100		%	1	11/16/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	59		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	42		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	65		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	51		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	83		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: SW-02

Phoenix I.D.: BZ40758

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If there are any questions regarding this data, please call Phoenix Client Services.
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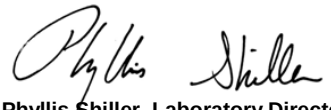

Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	11:45
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40759

Project ID: ROCKVILLE MGP
Client ID: SW-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C
Barium	0.047	0.002	mg/L	1	11/15/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium (Dissolved)	0.047	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/14/17	MA	E200.7-4.4
Thallium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc (Dissolved)	0.003	0.002	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-03

Phoenix I.D.: BZ40759

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Dissolved Digestion	Completed				11/14/17	Q/W	SW7470A
Mercury Digestion	Completed				11/14/17	QW/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Dissolved Metals Preparation	Completed				11/13/17	AG	SW3005A
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	11/18/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-03

Phoenix I.D.: BZ40759

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	97		%	1	11/17/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-03

Phoenix I.D.: BZ40759

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.98	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	35		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	54		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	44		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	77		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-03

Phoenix I.D.: BZ40759

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Methylnaphthalene	ND	0.98	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.78	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	105		%	1	11/16/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	58		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	41		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	61		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	52		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	84		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: SW-03

Phoenix I.D.: BZ40759

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If there are any questions regarding this data, please call Phoenix Client Services.
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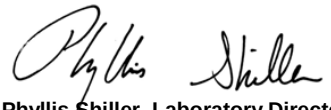

Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	10:45
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40760

Project ID: ROCKVILLE MGP
Client ID: SW-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C
Barium	0.049	0.002	mg/L	1	11/15/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium (Dissolved)	0.048	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/14/17	MA	E200.7-4.4
Thallium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc (Dissolved)	0.006	0.002	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-04

Phoenix I.D.: BZ40760

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Dissolved Digestion	Completed				11/14/17	Q/W	SW7470A
Mercury Digestion	Completed				11/14/17	QW/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Dissolved Metals Preparation	Completed				11/13/17	AG	SW3005A
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.070	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	11/18/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-04

Phoenix I.D.: BZ40760

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	101		%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	96		%	1	11/17/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-04

Phoenix I.D.: BZ40760

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.9	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	49	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.99	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	34		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	53		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	43		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	77		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-04

Phoenix I.D.: BZ40760

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Methylnaphthalene	ND	0.99	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.20	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.10	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.79	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.49	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	113		%	1	11/16/17	DD	15 - 110 %	3
% 2-Fluorobiphenyl	61		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	43		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	65		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	56		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	84		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: SW-04
Phoenix I.D.: BZ40760

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	9:10
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40761

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/15/17	MA	SW6010C
Barium	0.051	0.002	mg/L	1	11/15/17	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/14/17	MA	SW6010C
Barium (Dissolved)	0.046	0.002	mg/L	1	11/14/17	MA	SW6010C
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Copper (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel (Dissolved)	< 0.001	0.001	mg/L	1	11/14/17	MA	SW6010C
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Antimony (Dissolved)	< 0.005	0.005	mg/L	1	11/14/17	MA	SW6010C
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/14/17	MA	E200.7-4.4
Thallium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	11/14/17	MA	SW6010C
Zinc (Dissolved)	0.003	0.002	mg/L	1	11/14/17	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/17	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	11/15/17	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/15/17	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/15/17	MA	SW6010C
Thallium	< 0.001	0.001	mg/L	1	11/14/17	RS	SM3113B/SW7010-04

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Phoenix I.D.: BZ40761

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Vanadium	< 0.002	0.002	mg/L	1	11/15/17	MA	SW6010C
Zinc	0.003	0.002	mg/L	1	11/15/17	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/14/17	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/16/17	P/I	SW3510C/SW3520C
Mercury Dissolved Digestion	Completed				11/14/17	Q/W	SW7470A
Mercury Digestion	Completed				11/14/17	QW/W	SW7470A
Semi-Volatile Extraction	Completed				11/14/17	P/IQD	SW3520C
Dissolved Metals Preparation	Completed				11/13/17	AG	SW3005A
Total Metals Digestion	Completed				11/14/17	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/18/17	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/18/17	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	60		%	1	11/18/17	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/17/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Acetone	ND	25	ug/L	1	11/17/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/17/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Phoenix I.D.: BZ40761

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/17/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/17/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/17/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/17/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/17/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	11/17/17	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/17/17	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	11/17/17	MH	70 - 130 %
% Toluene-d8	97		%	1	11/17/17	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
1,2-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
1,3-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D
1,4-Dichlorobenzene	ND	2.3	ug/L	1	11/17/17	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Phoenix I.D.: BZ40761

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/17/17	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Aniline	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	11/17/17	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/17/17	DD	SW8270D
Phenol	ND	0.94	ug/L	1	11/17/17	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/17/17	DD	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	11/17/17	DD	30 - 130 %
% 2-Fluorophenol	36		%	1	11/17/17	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	11/17/17	DD	30 - 130 %
% Phenol-d5	44		%	1	11/17/17	DD	15 - 110 %
% Terphenyl-d14	77		%	1	11/17/17	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Phoenix I.D.: BZ40761

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Methylnaphthalene	ND	0.94	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Acenaphthylene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benz(a)anthracene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Benzo(a)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Chrysene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	B
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluoranthene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Fluorene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobenzene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Naphthalene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	11/16/17	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	11/16/17	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	108		%	1	11/16/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	64		%	1	11/16/17	DD	30 - 130 %	
% 2-Fluorophenol	44		%	1	11/16/17	DD	15 - 110 %	
% Nitrobenzene-d5	68		%	1	11/16/17	DD	30 - 130 %	
% Phenol-d5	54		%	1	11/16/17	DD	15 - 110 %	
% Terphenyl-d14	86		%	1	11/16/17	DD	30 - 130 %	

Project ID: ROCKVILLE MGP
Client ID: SW-DUP

Phoenix I.D.: BZ40761

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If there are any questions regarding this data, please call Phoenix Client Services.
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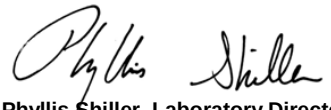

Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 21, 2017

FOR: Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		11/13/17	
Location Code:	TIGHE-DAS	Received by:	B	11/13/17	17:39
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-044				

Laboratory Data

SDG ID: GBZ40757
Phoenix ID: BZ40762

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/17	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ40762

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	11/16/17	MH	SW8260C
Acrylonitrile	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/16/17	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/16/17	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/17	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/17	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/17	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/16/17	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/17	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	11/16/17	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/16/17	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: BZ40762

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	106		%	1	11/16/17	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 21, 2017
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 21, 2017

QA/QC Data

SDG I.D.: GBZ40757

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 409205 (mg/L), QC Sample No: BZ38200 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
Thallium (Dissolved)	BRL	0.002	<0.002	<0.002	NC	106			82.9			75 - 125	20
QA/QC Batch 409475 (mg/L), QC Sample No: BZ40032 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	95.2			84.4			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 409412 (mg/L), QC Sample No: BZ40141 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
Thallium - Water	BRL	0.001	<0.001	<0.001	NC	109			101			75 - 125	20
QA/QC Batch 409450 (mg/L), QC Sample No: BZ40757 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
ICP Metals - Dissolved													
Antimony	BRL	0.005	<0.005	<0.005	NC	85.8			81.5			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	88.7			84.2			75 - 125	20
Barium	BRL	0.002	0.046	0.047	2.20	94.9			87.8			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	90.0			87.8			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	90.0			84.9			75 - 125	20
Chromium	BRL	0.001	0.001	<0.001	NC	90.1			85.0			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	90.7			85.7			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	89.0			83.8			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	91.7			86.0			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	85.8			82.9			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	85.8			82.0			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	88.3			84.8			75 - 125	20
Zinc	BRL	0.002	0.004	0.004	NC	87.7			83.6			75 - 125	20
QA/QC Batch 409474 (mg/L), QC Sample No: BZ40760 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	85.5			84.3			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 409594 (mg/L), QC Sample No: BZ40979 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	90.7			86.9			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	91.0			88.8			75 - 125	20
Barium	BRL	0.002	0.010	0.008	NC	102			96.0			75 - 125	20
Beryllium	BRL	0.001	0.001	<0.001	NC	104			98.4			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	90.7			87.0			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	91.0			87.9			75 - 125	20
Copper	BRL	0.005	0.026	0.020	NC	99.6			93.8			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	89.7			86.4			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	90.1			86.7			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	87.5			84.1			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	96.4			92.4			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	97.6			92.5			75 - 125	20

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Zinc	BRL	0.002	<0.002	<0.002	NC	90.8			88.4			75 - 125	20

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QA/QC Report

November 21, 2017

QA/QC Data

SDG I.D.: GBZ40757

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 409425 (mg/L), QC Sample No: BZ39271 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	99.5			101			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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QA/QC Report

November 21, 2017

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)											
Semivolatiles (SIM) - Surface Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	65	71	8.8				30 - 130	20	
2-Methylnaphthalene	ND	0.02	57	62	8.4				30 - 130	20	
Acenaphthene	ND	0.02	68	73	7.1				30 - 130	20	
Acenaphthylene	ND	0.02	68	69	1.5				30 - 130	20	
Anthracene	ND	0.02	73	80	9.2				30 - 130	20	
Benz(a)anthracene	0.04	0.02	74	82	10.3				30 - 130	20	
Benzo(a)pyrene	ND	0.02	67	73	8.6				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	74	80	7.8				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	69	74	7.0				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	73	82	11.6				30 - 130	20	
Bis(2-ethylhexyl)phthalate	0.12	0.10	72	75	4.1				30 - 130	20	
Chrysene	0.03	0.02	71	76	6.8				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	83	90	8.1				30 - 130	20	
Dibenzofuran	ND	0.05	64	70	9.0				30 - 130	20	
Fluoranthene	ND	0.02	74	81	9.0				30 - 130	20	
Fluorene	ND	0.02	71	77	8.1				30 - 130	20	
Hexachlorobenzene	ND	0.02	78	84	7.4				30 - 130	20	
Hexachlorobutadiene	ND	0.05	51	54	5.7				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	41	50	19.8				30 - 130	20	
Hexachloroethane	ND	0.05	45	51	12.5				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	75	82	8.9				30 - 130	20	
Naphthalene	ND	0.02	52	55	5.6				30 - 130	20	
Nitrobenzene	ND	0.05	59	64	8.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	91	100	9.4				30 - 130	20	
Pentachlorophenol	ND	0.20	114	137	18.3				30 - 130	20	I
Phenanthrene	ND	0.02	70	75	6.9				30 - 130	20	
Pyrene	ND	0.02	77	82	6.3				30 - 130	20	
Pyridine	ND	0.50	46	51	10.3				30 - 130	20	
% 2,4,6-Tribromophenol	102	%	102	113	10.2				15 - 110	20	I
% 2-Fluorobiphenyl	65	%	60	64	6.5				30 - 130	20	
% 2-Fluorophenol	48	%	32	34	6.1				15 - 110	20	
% Nitrobenzene-d5	72	%	57	65	13.1				30 - 130	20	
% Phenol-d5	53	%	41	42	2.4				15 - 110	20	
% Terphenyl-d14	85	%	79	87	9.6				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 409565 (ug/L), QC Sample No: BZ39299 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)										
Semivolatiles - Surface Water										
1,2,4-Trichlorobenzene	ND	3.5	59	61	3.3				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	48	52	8.0				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6	80	89	10.7				30 - 130	20
1,3-Dichlorobenzene	ND	1.0	47	50	6.2				30 - 130	20
1,4-Dichlorobenzene	ND	1.0	48	53	9.9				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0	83	91	9.2				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0	75	85	12.5				30 - 130	20
2,4-Dichlorophenol	ND	1.0	69	73	5.6				30 - 130	20
2,4-Dimethylphenol	ND	1.0	70	74	5.6				30 - 130	20
2,4-Dinitrophenol	ND	1.0	88	97	9.7				30 - 130	20
2,4-Dinitrotoluene	ND	3.5	87	97	10.9				30 - 130	20
2,6-Dinitrotoluene	ND	3.5	85	93	9.0				30 - 130	20
2-Chloronaphthalene	ND	3.5	71	80	11.9				30 - 130	20
2-Chlorophenol	ND	1.0	45	48	6.5				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0	59	62	5.0				30 - 130	20
2-Nitroaniline	ND	3.5	118	127	7.3				30 - 130	20
2-Nitrophenol	ND	1.0	61	65	6.3				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0	62	64	3.2				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0	84	78	7.4				30 - 130	20
3-Nitroaniline	ND	5.0	99	105	5.9				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0	90	101	11.5				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5	81	88	8.3				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0	83	86	3.6				30 - 130	20
4-Chloroaniline	ND	3.5	79	82	3.7				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0	84	93	10.2				30 - 130	20
4-Nitroaniline	ND	5.0	82	92	11.5				30 - 130	20
4-Nitrophenol	ND	1.0	89	95	6.5				15 - 130	20
Acetophenone	ND	3.5	59	62	5.0				30 - 130	20
Aniline	ND	3.5	60	63	4.9				30 - 130	20
Benzidine	ND	4.5	108	123	13.0				30 - 130	20
Benzoic acid	ND	10	52	52	0.0				30 - 130	20
Benzyl butyl phthalate	ND	1.5	86	92	6.7				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	69	73	5.6				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	43	47	8.9				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	47	50	6.2				30 - 130	20
Carbazole	ND	5.0	90	98	8.5				30 - 130	20
Diethyl phthalate	ND	1.5	85	94	10.1				30 - 130	20
Dimethylphthalate	ND	1.5	84	93	10.2				30 - 130	20
Di-n-butylphthalate	ND	1.5	90	99	9.5				30 - 130	20
Di-n-octylphthalate	ND	1.5	88	95	7.7				30 - 130	20
Isophorone	ND	3.5	68	73	7.1				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	47	49	4.2				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	66	71	7.3				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	77	87	12.2				30 - 130	20
Phenol	ND	1.0	46	43	6.7				15 - 130	20
% 2,4,6-Tribromophenol	69	%	93	102	9.2				15 - 110	20
% 2-Fluorobiphenyl	68	%	74	83	11.5				30 - 130	20
% 2-Fluorophenol	32	%	35	35	0.0				15 - 110	20
% Nitrobenzene-d5	56	%	57	60	5.1				30 - 130	20
% Phenol-d5	40	%	43	41	4.8				15 - 110	20

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% Terphenyl-d14	77	%	95	103	8.1				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 410071 (ug/L), QC Sample No: BZ40435 (BZ40757, BZ40758)

Volatiles - Surface Water

1,1,1,2-Tetrachloroethane	ND	1.0	90	90	0.0	100	103	3.0	70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	90	92	2.2	107	107	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	95	98	3.1	108	113	4.5	70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	91	96	5.3	105	107	1.9	70 - 130	30	
1,1-Dichloroethane	ND	1.0	94	95	1.1	109	110	0.9	70 - 130	30	
1,1-Dichloroethene	ND	1.0	99	99	0.0	122	119	2.5	70 - 130	30	
1,1-Dichloropropene	ND	1.0	95	96	1.0	111	113	1.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	102	104	1.9	64	94	38.0	70 - 130	30	m,r
1,2,3-Trichloropropane	ND	1.0	93	94	1.1	105	108	2.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	94	94	0.0	71	85	17.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	88	89	1.1	99	100	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	100	99	1.0	98	111	12.4	70 - 130	30	
1,2-Dibromoethane	ND	1.0	93	95	2.1	103	108	4.7	70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	90	93	3.3	99	103	4.0	70 - 130	30	
1,2-Dichloroethane	ND	1.0	93	97	4.2	104	108	3.8	70 - 130	30	
1,2-Dichloropropane	ND	1.0	94	96	2.1	107	107	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	89	91	2.2	102	102	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	89	91	2.2	100	103	3.0	70 - 130	30	
1,3-Dichloropropane	ND	1.0	93	97	4.2	106	110	3.7	70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	90	91	1.1	100	103	3.0	70 - 130	30	
2,2-Dichloropropane	ND	1.0	88	88	0.0	91	91	0.0	70 - 130	30	
2-Chlorotoluene	ND	1.0	89	89	0.0	101	102	1.0	70 - 130	30	
2-Hexanone	ND	5.0	96	101	5.1	102	110	7.5	70 - 130	30	
2-Isopropyltoluene	ND	1.0	94	95	1.1	106	108	1.9	70 - 130	30	
4-Chlorotoluene	ND	1.0	88	88	0.0	101	100	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	95	97	2.1	107	109	1.9	70 - 130	30	
Acetone	ND	5.0	96	96	0.0	75	82	8.9	70 - 130	30	
Acrylonitrile	ND	5.0	99	108	8.7	115	121	5.1	70 - 130	30	
Benzene	ND	0.70	92	93	1.1	105	106	0.9	70 - 130	30	
Bromobenzene	ND	1.0	89	89	0.0	101	101	0.0	70 - 130	30	
Bromochloromethane	ND	1.0	93	97	4.2	107	109	1.9	70 - 130	30	
Bromodichloromethane	ND	0.50	90	94	4.3	102	105	2.9	70 - 130	30	
Bromoform	ND	1.0	84	86	2.4	90	96	6.5	70 - 130	30	
Bromomethane	ND	1.0	110	115	4.4	84	111	27.7	70 - 130	30	
Carbon Disulfide	ND	1.0	107	107	0.0	131	128	2.3	70 - 130	30	m
Carbon tetrachloride	ND	1.0	90	91	1.1	106	107	0.9	70 - 130	30	
Chlorobenzene	ND	1.0	91	92	1.1	102	105	2.9	70 - 130	30	
Chloroethane	ND	1.0	106	107	0.9	133	130	2.3	70 - 130	30	m
Chloroform	ND	1.0	90	93	3.3	106	107	0.9	70 - 130	30	
Chloromethane	ND	1.0	97	98	1.0	114	113	0.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	92	94	2.2	107	104	2.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	92	95	3.2	103	105	1.9	70 - 130	30	
Dibromochloromethane	ND	0.50	92	93	1.1	101	106	4.8	70 - 130	30	
Dibromomethane	ND	1.0	93	95	2.1	104	107	2.8	70 - 130	30	
Dichlorodifluoromethane	ND	1.0	123	124	0.8	131	131	0.0	70 - 130	30	m

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Ethylbenzene	ND	1.0	91	91	0.0	104	104	0.0	70 - 130	30	
Hexachlorobutadiene	ND	0.40	91	92	1.1	85	93	9.0	70 - 130	30	
Isopropylbenzene	ND	1.0	90	89	1.1	103	103	0.0	70 - 130	30	
m&p-Xylene	ND	1.0	96	97	1.0	109	110	0.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	103	109	5.7	116	120	3.4	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	97	101	4.0	110	114	3.6	70 - 130	30	
Methylene chloride	ND	1.0	98	102	4.0	102	103	1.0	70 - 130	30	
Naphthalene	ND	1.0	105	108	2.8	73	97	28.2	70 - 130	30	
n-Butylbenzene	ND	1.0	91	90	1.1	102	103	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	90	89	1.1	103	102	1.0	70 - 130	30	
o-Xylene	ND	1.0	92	94	2.2	105	106	0.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	91	91	0.0	103	104	1.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	96	95	1.0	110	111	0.9	70 - 130	30	
Styrene	ND	1.0	91	94	3.2	102	105	2.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	91	90	1.1	104	104	0.0	70 - 130	30	
Tetrachloroethene	ND	1.0	91	91	0.0	101	103	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	92	99	7.3	107	111	3.7	70 - 130	30	
Toluene	ND	1.0	92	92	0.0	105	105	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	90	91	1.1	105	106	0.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	88	91	3.4	97	101	4.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	87	88	1.1	90	92	2.2	70 - 130	30	
Trichloroethene	ND	1.0	90	92	2.2	103	104	1.0	70 - 130	30	
Trichlorofluoromethane	ND	1.0	111	111	0.0	135	129	4.5	70 - 130	30	m
Trichlorotrifluoroethane	ND	1.0	114	113	0.9	126	124	1.6	70 - 130	30	
Vinyl chloride	ND	1.0	101	103	2.0	124	121	2.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	100	0.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	101	%	100	101	1.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	94	%	98	97	1.0	99	102	3.0	70 - 130	30	
% Toluene-d8	106	%	102	102	0.0	103	102	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 410048 (ug/L), QC Sample No: BZ41186 (BZ40759, BZ40760, BZ40761)

Volatiles - Surface Water

1,1,1,2-Tetrachloroethane	ND	1.0	92	100	8.3				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	100	104	3.9				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	96	111	14.5				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	91	107	16.2				70 - 130	30	
1,1-Dichloroethane	ND	1.0	95	103	8.1				70 - 130	30	
1,1-Dichloroethene	ND	1.0	103	106	2.9				70 - 130	30	
1,1-Dichloropropene	ND	1.0	97	100	3.0				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	102	115	12.0				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	78	83	6.2				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	93	106	13.1				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	93	95	2.1				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	93	104	11.2				70 - 130	30	
1,2-Dibromoethane	ND	1.0	93	103	10.2				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	95	102	7.1				70 - 130	30	
1,2-Dichloroethane	ND	1.0	93	108	14.9				70 - 130	30	
1,2-Dichloropropane	ND	1.0	91	101	10.4				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	91	96	5.3				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	93	98	5.2				70 - 130	30	
1,3-Dichloropropane	ND	1.0	90	102	12.5				70 - 130	30	

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,4-Dichlorobenzene	ND	1.0	91	97	6.4				70 - 130	30
2,2-Dichloropropane	ND	1.0	102	107	4.8				70 - 130	30
2-Chlorotoluene	ND	1.0	94	97	3.1				70 - 130	30
2-Hexanone	ND	5.0	94	108	13.9				70 - 130	30
2-Isopropyltoluene	ND	1.0	95	99	4.1				70 - 130	30
4-Chlorotoluene	ND	1.0	95	97	2.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	88	116	27.5				70 - 130	30
Acetone	ND	5.0	104	123	16.7				70 - 130	30
Acrylonitrile	ND	5.0	91	115	23.3				70 - 130	30
Benzene	ND	0.70	94	99	5.2				70 - 130	30
Bromobenzene	ND	1.0	93	100	7.3				70 - 130	30
Bromochloromethane	ND	1.0	89	105	16.5				70 - 130	30
Bromodichloromethane	ND	0.50	89	101	12.6				70 - 130	30
Bromoform	ND	1.0	80	95	17.1				70 - 130	30
Bromomethane	ND	1.0	95	102	7.1				70 - 130	30
Carbon Disulfide	ND	1.0	109	111	1.8				70 - 130	30
Carbon tetrachloride	ND	1.0	95	98	3.1				70 - 130	30
Chlorobenzene	ND	1.0	92	96	4.3				70 - 130	30
Chloroethane	ND	1.0	100	106	5.8				70 - 130	30
Chloroform	ND	1.0	93	103	10.2				70 - 130	30
Chloromethane	ND	1.0	97	102	5.0				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	96	106	9.9				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	90	104	14.4				70 - 130	30
Dibromochloromethane	ND	0.50	93	103	10.2				70 - 130	30
Dibromomethane	ND	1.0	91	111	19.8				70 - 130	30
Dichlorodifluoromethane	ND	1.0	107	109	1.9				70 - 130	30
Ethylbenzene	ND	1.0	91	95	4.3				70 - 130	30
Hexachlorobutadiene	ND	0.40	95	94	1.1				70 - 130	30
Isopropylbenzene	ND	1.0	92	96	4.3				70 - 130	30
m&p-Xylene	ND	1.0	91	94	3.2				70 - 130	30
Methyl ethyl ketone	ND	5.0	100	115	14.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	93	117	22.9				70 - 130	30
Methylene chloride	ND	1.0	100	113	12.2				70 - 130	30
Naphthalene	ND	1.0	101	121	18.0				70 - 130	30
n-Butylbenzene	ND	1.0	89	98	9.6				70 - 130	30
n-Propylbenzene	ND	1.0	89	95	6.5				70 - 130	30
o-Xylene	ND	1.0	93	97	4.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	90	96	6.5				70 - 130	30
sec-Butylbenzene	ND	1.0	90	99	9.5				70 - 130	30
Styrene	ND	1.0	93	98	5.2				70 - 130	30
tert-Butylbenzene	ND	1.0	89	96	7.6				70 - 130	30
Tetrachloroethene	ND	1.0	90	97	7.5				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	99	132	28.6				70 - 130	30
Toluene	ND	1.0	91	99	8.4				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	98	103	5.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	85	102	18.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	94	101	7.2				70 - 130	30
Trichloroethene	ND	1.0	92	97	5.3				70 - 130	30
Trichlorofluoromethane	ND	1.0	104	107	2.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	103	109	5.7				70 - 130	30
Vinyl chloride	ND	1.0	103	106	2.9				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	99	103	4.0				70 - 130	30
% Bromofluorobenzene	102	%	99	101	2.0				70 - 130	30

QA/QC Data

SDG I.D.: GBZ40757

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Dibromofluoromethane	93	%		93	101	8.2				70 - 130	30
% Toluene-d8	97	%		100	101	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 409939 (mg/L), QC Sample No: BZ42103 (BZ40757, BZ40758, BZ40759, BZ40760, BZ40761)

TPH by GC (Extractable Products) - Surface Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10		78	72	8.0	80	80	0.0	60 - 120	30
% n-Pentacosane	75	%		84	79	6.1	80	85	6.1	50 - 150	20

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
November 21, 2017

Tuesday, November 21, 2017

Criteria: None

State: CT

Sample Criteria Exceedances Report

GBZ40757 - TIGHE-DAS

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 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:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

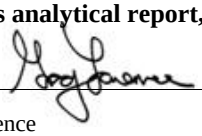
Laboratory Sample ID(s): BZ40757-BZ40762 ***Sampling Date(s):*** 11/13/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7000, 7470/7471, 8260, 8270, ETPH, 9010/9012

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT 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: SVOASIM Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, November 21, 2017

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
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Certification Report

November 21, 2017

SDG I.D.: GBZ40757

AA Metals (TL) Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

PE600-2 11/14/17 14:04 Rick Schweitzer, Chemist 11/14/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The CRDL met criteria.
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 samples did not meet analytical spike criteria: None.

QC (Batch Specific):

Batch 409205 (BZ38200)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 409412 (BZ40141)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/14/17-1 Dustin Harrison, Greg Danielewski, Chemist 11/14/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 409425 (BZ39271)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

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SDG I.D.: GBZ40757

Cyanide Narration

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-FID11 11/17/17-1 Jeff Bucko, Chemist 11/17/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 409939 (BZ42103)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/14/17 07:51 Rick Schweitzer, Chemist 11/14/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

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 409475 (BZ40032)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 80 - 120 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QC (Site Specific):

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Certification Report

November 21, 2017

SDG I.D.: GBZ40757

Mercury Narration

Batch 409474 (BZ40760)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 11/13/17 06:56 Mike Arsenault, Chemist 11/13/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

BLUE 11/15/17 07:12 Mike Arsenault, Chemist 11/15/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

The initial calibration met criteria.
The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.
The continuing calibration blanks were less than the reporting level for the elements reported.
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria.The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 409594 (BZ40979)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 75 - 125 with the following exceptions: None.

QC (Site Specific):

Batch 409450 (BZ40757)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

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SDG I.D.: GBZ40757

ICP Metals Narration

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM29 11/17/17-1 Damien Drobinski, Chemist 11/17/17

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

Initial Calibration Verification (CHEM29/SPLIT_1115):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dimethylphenol 24% (20%), 2-Nitroaniline 21% (20%), 2-Nitrophenol 25% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.097 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/1117_02-SPLIT_1115):
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: 2-Nitrophenol 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409565 (BZ39299)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

SVOASIM Narration

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RCP Certification Report

November 21, 2017

SDG I.D.: GBZ40757

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 409565 (Samples: BZ40757, BZ40758, BZ40759, BZ40760, BZ40761): -----

A trace amount of an analyte was found in blank but were not reported in the sample(s), therefore no bias is suspected. (Benz(a)anthracene, Bis(2-ethylhexyl)phthalate, Chrysene)

The LCSD recovery for one of the surrogates is above the upper range. No significant bias is suspected. (% 2,4,6-Tribromophenol)

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Pentachlorophenol)

Instrument:

CHEM04 11/16/17-1 Damien Drobinski, Chemist 11/16/17

BZ40758, BZ40759, BZ40760, BZ40761

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

Initial Calibration Verification (CHEM04/SIM_1113):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: Chrysene 23% (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 (CHEM04/1116_02-SIM_1113):
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.

CHEM07 11/16/17-1 Damien Drobinski, Chemist 11/16/17

BZ40757

Initial Calibration Verification (CHEM07/SIM_1025):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1116_02-SIM_1025):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.

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RCP Certification Report

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SDG I.D.: GBZ40757

SVOASIM Narration

The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 409565 (BZ39299)

BZ40757, BZ40758, BZ40759, BZ40760, BZ40761

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: % 2,4,6-Tribromophenol(113%), Pentachlorophenol(137%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 410048 (Samples: BZ40759, BZ40760, BZ40761): -----

The LCSD recovery is above the upper range for one analyte that was not reported in the sample(s), therefore no significant bias is suspected. (Tetrahydrofuran (THF))

Instrument:

CHEM02 11/16/17-2 Michael Hahn, Chemist 11/16/17

BZ40757, BZ40758, BZ40762

Initial Calibration Verification (CHEM02/VT-P1112):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 37% (20%), Acrylonitrile 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.020 (0.05), 2-Hexanone 0.048 (0.1), 4-Methyl-2-pentanone 0.070 (0.1), Acetone 0.032 (0.1), Acrylonitrile 0.034 (0.05), Bromoform 0.080 (0.1), Methyl ethyl ketone 0.045 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1116P26-VT-P1112):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.208 (0.3), 1,2-Dibromo-3-chloropropane 0.020 (0.05), Acrylonitrile 0.034 (0.05), Bromoform 0.069 (0.1), Tetrahydrofuran (THF) 0.029 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 11/16/17-2 Michael Hahn, Chemist 11/16/17

BZ40759, BZ40760, BZ40761

Initial Calibration Verification (CHEM17/VT-S1114):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Methyl ethyl ketone 25% (20%), trans-1,4-dichloro-2-butene 21% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.033 (0.05), 2-Hexanone

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RCP Certification Report

November 21, 2017

SDG I.D.: GBZ40757

VOA Narration

0.057 (0.1), 4-Methyl-2-pentanone 0.078 (0.1), Acetone 0.037 (0.1), Bromoform 0.081 (0.1), Methyl ethyl ketone 0.051 (0.1), Tetrahydrofuran (THF) 0.034 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1116_26-VT-S1114):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.034 (0.05), Bromoform 0.077 (0.1), Tetrahydrofuran (THF) 0.040 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 410048 (BZ41186)

BZ40759, BZ40760, BZ40761

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Tetrahydrofuran (THF)(132%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 410071 (BZ40435)

BZ40757, BZ40758

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.0C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

CHAIN OF CUSTODY RECORD

Temp 1.0 °C Pg 1 of 1

PHOENIX
Environmental Laboratories, Inc.

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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
[ ] Fax #:
[X] Email: LWilley@tpbland.com

Customer: Tighe + Bond
Address: 213 Court St
Suite 1100
Middletown CT

Project: Meriden MGP
Report to: Lynn Willey
Invoice to: Tighe + Bond
Phone #:
Fax #:

Project P.O: 14-0755-044

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/13/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	ETPH	TAL metals	Dissolved metals (field filtered)	TCLP metals	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [X] As is [ ] H2SO4	PL As is [X] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
40757	SW-01	SW	11/13/17	13:45	X	X	X	X	X	X				3	3	1		2	1			
40758	SW-02			12:20	X	X	X	X	X	X				3	3	1		2	1			
40759	SW-03			11:45	X	X	X	X	X	X				3	3	1		2	1			
40760	SW-04			10:45	X	X	X	X	X	X				3	3	1		2	1			
40761	SW-DUP			0:00	X	X	X	X	X	X				3	3	1		2	1			
40762	Trip Blank				X									3								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	11/13/17	1739

Comments, Special Requirements or Regulations:
Quote #12012517BA
DAS Pricing

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] 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
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[X] Other Excel

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[X] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 21
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