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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: Significant Environmental Hazard Program	Project ID: 13641
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:
Program: Select Secondary Program	Project ID:

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: 12/31/2018

Part IV: Submitter Information

Name: Lynn E. Willey **E-mail: lewilley@tighebond.com

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DEEP Contact Information:

Remediation Division

79 Elm St 2nd floor
Hartford, CT 06106-5127
860-424-3705

LUST Coordination Program

79 Elm St. 4th floor
Hartford, CT 06106-5127
860-424-3376

Additional Information for LUST Filings

Select one of the following abbreviations for use in File name

Report	Abbreviation
Tank Closure Assessment Report/UST Closure Report	CR
Investigation - Site Characterization Report	ESA
Investigation - Subsurface Investigation Report	ESA
Investigation - Phase I Site Assessment Report	ESA
Investigation - Phase II Investigation Report	ESA
Investigation - Phase III Investigation Report	ESA
Investigation - Receptor Survey	SRS
Investigation - Environment Site Assessment	ESA
Investigation - Supplemental Phase I Site Assessment Report	ESA
Investigation - Supplemental Phase II Investigation Report	ESA
Investigation - Supplemental Phase III Investigation Report	ESA
Investigation - Well Receptor Survey	SRS
Remediation - Corrective Action Plan	CAP
Remediation - Corrective Actions Report	CAR
Remediation - 20 Day Spill Report	CAR
Remediation - 45 Day Spill Report	CAR
Remediation - Soil Excavation Report	CAR
Remediation - Free Product Removal Report	CAR
Remediation - Remedial Action Plan	RAP
Remediation - Operation & Maintenance Plan	RAR
Remediation - Remedial Action Report	RAR
Remediation - Remedial Design Report	RAR
Monitoring Reports - Ground Water Monitoring Report	GWMR
Monitoring Reports - Site Status Report	SSR
Schedule	SCH
Scope of Work	SOW



Former Rockville Manufactured Gas Plant
13 Maple Street
Rockville, Vernon, CT

2018 Voluntary Remediation Program Annual Report

Prepared For:

Eversource Energy

December 2018

Tighe&Bond
Engineers | Environmental Specialists

14-0755-044
December 31, 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

Re: **2018 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 2018 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 2018 Calendar Year.

Significant progress was made to assess the nature and extent of the former Rockville MGP site impacts during 2018. Site activities completed in 2018 included the implementation of a Phase III ESA field program at on-site and off-site properties, groundwater gauging and sampling and completion of follow-up water supply well receptor survey findings.

The following 2018 Annual Report includes a brief summary of site background, activities completed during 2018, 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, PG, LEP
Vice President

Lynn E. Willey, PG, LEP
Senior Environmental Scientist

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Tighe&Bond

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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 Manufactured Gas Plant (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.

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 area and abuts the Inner Substation to the south. Wooded and overgrown areas are located on the northern portion of the site adjacent to the St. Joseph Church's 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; and
- 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; or
- 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 Right-of Way (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, Tighe & Bond 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 which was completed as part of the 2017 Phase III ESA activities at the site.

1.4 Significant Environmental Hazards Notification and Investigation

Tighe & Bond identified that benzo(a)pyrene was detected in SS-102 (0-6") at a concentration of 45 milligrams/kilogram (mg/Kg) which is above CTDEEP's Significant Environmental Hazard (SEH) Condition Notification Threshold Concentration of 30 mg/Kg during the 2017 Phase III ESA. SEH soil delineation activities are provided in *Significant Environmental Hazard Soil Delineation, Former Rockville Manufactured Gas Plant, Rockville Substation 14W, 13 Maple Street, Rockville, CT*, dated February 25, 2018, prepared by Tighe & Bond.

SS-102 was collected from the top six inches of soil below the crushed gravel cover within the active Inner Substation Area. The SS-102 sample location is situated within the footprint of the former Coal Shed associated with the MGP. Historic fill material, and a large piece of coal were observed within soils during the collection of SS-102. A SEH Notification Form was submitted to CTDEEP on February 26, 2018 because the SEH Condition in surface soils was not mitigated within 90-days of identification.

CTDEEP issued an SEH acknowledgement letter *RE: Notification of Significant Environmental Hazard, Former Rockville Manufactured Gas Plant, 13 Maple Street, Vernon, CT* dated March 16, 2018 (SEH Acknowledgement Letter). The SEH Acknowledgement Letter indicated that the reported condition did not require an immediate response to limit short-term risk because a permanent fence surrounds the property limiting access. However, annual inspection reports, site investigation and remediation would need to be continued in accordance with the plan provided in the SEH notification form.

The SEH shallow soil investigation included the advancement of hand auger soil borings, HA-1 through HA-09 to 2 feet below grade around SS-102 within and adjacent to the footprint of the former coal house within the Inner Substation. The soil boring locations are provided on Figure 4. Fill materials observed in soil included brick, coal fragments, slag, wood, asphalt, glass fragments and ash. Hand auger refusal was encountered at HA-03 on a suspected foundation within the footprint of the former Coal Shed. Concentrations of benzo(a)pyrene were detected above the SEH Condition Notification Threshold Concentration of 30 mg/Kg in the three SEH investigation sample locations and depth intervals:

- HA-01A (1.0-1.5 feet): 53 mg/Kg
- HA-02 (1.5-2.0 feet): 33 mg/Kg
- HA-03 (0.5 -1.0 feet): 32 mg/Kg

PAHs were detected above the Res DEC, I/C DEC, and GB PMC at each of the hand auger locations (HA-01 through HA-09). The findings of the SEH Soil delineation were provided to CTDEEP in a letter report dated September 25, 2018.

1.5 2017 Annual Report

The 2017 Annual Report for the Rockville Former MGP site provided a summary of the first round of Phase III ESA investigations at the site. The 2017 Annual Report provided a summary of soil, groundwater, sediment and surface water sampling that was completed at the site under the VRP. A summary of Phase III ESA and previous investigations are provided in Figure 5. The Annual Report identified data gaps that 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 (CSM) process prior to the remediation of a site. The following data gaps were presented in the 2017 Annual Report:

- 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 in bedrock well MW-03BR 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 was identified for 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 were 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 were proposed 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. Further delineation of vertical and lateral extent of impacts in subsurface soils within the Inner Substation was recommended.

- Extent of Impacted Soils within the Southern Outer Substation Area: Fill materials were encountered within the 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 was recommended 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 was proposed to assess current groundwater conditions during the seasonal high groundwater condition at the site.

- 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 were recommended to assess if the supply well was currently in use.

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 initially completed between August and November 2017. Data gaps were identified following the completion Phase III ESA in 2017. Additional Phase III ESA investigations were completed in 2018 to address data gaps and advance the CSM for the site.

The Phase III ESA included the collection of hand auger soil borings to assess shallow subsurface soils, advancement subsurface soil borings to characterize soils and the installation of monitoring wells to characterize groundwater conditions on-site and off-site areas of investigation. Sediments within the Hockanum River were collected to assess sediment concentrations identified during previous site investigations and to assess contributions from outfalls that discharge to the Hockanum River. Figure 5 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, 51 West Street and St. Joseph Church property. Continued coordination with the United States Postal Service (USPS) was completed with to maintain access to the USPS access road for off-site groundwater gauging and sampling to the east of the site. Access to off-site properties was secured between June and September 2018. Access was requested by the property owner for 59/ 61 West Street to the west of the site; however, access was not provided for Phase III ESA investigations.

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 a Geoprobe® 3230 drill rig or Geoprobe® 7822 drill rig. The compact Geoprobe 54LT was utilized for drilling on the western site boundary with 59/61 West Street where a smaller drilling footprint was required at the property boundary. 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 12 feet to 75 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 soils containing fill, coal tar/creosote-impacted intervals or just above the seasonal high groundwater table to assess compliance with the GB PMC, or below the water table at similar depth/ elevations adjacent impacts to delineate the lateral extent of coal tar impacts or fill materials. 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 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.

Hand auger soil borings were collected with a hand auger or a post-hole digger because of the coarse nature of the fill. Hand auger borings were advanced to collect shallow soil samples from the ground surface to 4 feet below grade in areas with limited access for a drill rig along the bank of the Hockanum River.

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. The annulus of the deep overburden monitoring well, MW-26D, was grouted with a bentonite-grout slurry above the bentonite to seal the borehole above the well screen in order to assess water quality of the deep overburden aquifer. 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. Phase III ESA locations within the Maple Street ROW were repaired by CISCO with hot asphalt pavement in accordance with the Town of Vernon street permit.

MW-26BR was installed by drilling the bedrock with a roller bit to allow for the installation of steel isolation casing. The isolation casing was grout into the bedrock and allowed to cure after which MW-26BR was drilled with an air hammer.

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 64 to 83 feet below grade at or near the bedrock interface. The bedrock surface elevation contours are provided on Figure 6. Newly installed monitoring wells were surveyed by Kratzert, Jones and Associates, Inc. a Connecticut-licensed surveyor and incorporated into the site-wide survey.

Newly installed 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. In addition, MW-14S and MW-14D were developed prior to the spring event and fall event. MW-13S and MW-13D were redeveloped prior to the fall sampling event. MW-13S was previously filled with sediments and MW-13D was historically paved over

and was located as part of 2018 activities. Groundwater wells were gauged and sampled at least 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 (HASP). 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. PCBs were analyzed using EPA Method 8082 for soils collected within the Inner Substation and in select soils collected on the West Main Street parcel. Select soil samples were collected for pesticides in the grassed area of the Outer Substation to assess historic detections of pesticides.

A summary of detected analytical results are provided by media, soil, groundwater, and sediment on Table 2, Table 3, and Table 4, respectively 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 off-site are discussed in following Sections 2.2 and 2.3, respectively.

2.2 On-Site Investigations and Findings

On-site Phase III ESA investigations were completed between July and October 2018 and SEH investigations were completed between April and May 2018. Site Investigations included:

- Advancement of 35 soil borings
  - soil borings (SB-28 through SB-39, SB-40, SB-40A, SB-41 through SB-59, and SB-65)
  - Three soil borings for monitoring well installations (MW-24S, MW-25S, MW-30S/SB-40)
- Advancement of 21 hand auger soil borings (HA-01 through HA-18)
  - Ten SEH hand auger soil borings: HA-1, HA-1A, and HA-2 through HA-9
  - Eleven Phase III ESA hand auger soil borings: HA-7A, HA-9A, and HA-10 through HA-18
  - Installation of four shallow, monitoring wells screened across the water table designated "S" including one replacement well designated "R"): MW-24S, MW-25S, MW-30S and MW-4SR

Phase III ESA analytical samples collected on-site included:

- Eighty-eight soil samples, including three blind duplicate samples. Of these samples, thirty-one, including one duplicate, were associated with the SEH assessment within the Inner Substation.
- Twenty-eight groundwater samples, including two duplicates, were collected during the spring groundwater sampling event and nine groundwater samples, including one duplicate, were collected during the fall groundwater sampling event. Groundwater samples were not collected from the following monitoring wells because coal tar blebs, staining and/or sheens were observed during the development or subsequent gauging of the wells: MW-10SR, MW-24S, MW-02D, MW-03D, MW-10D on-site and MW-20S (off-site)
- Seven sediment samples (SED-06A, SED-06B, SED-06C and SED-07 through SED-09) including one blind duplicate sample from sediments within the Hockanum River.

A summary of on-site Phase III ESA findings is provided below. A preliminary CSM table is provided as Table 5.

2.2.1 Subsurface Soils

Assessment of Extent of Impacted Soils within the Inner Substation Area

- Shallow subsurface soils within the Inner Substation at the former Coal House (AOC-6) and Current Substation (AOC-8) were assessed as part of the SEH investigation described above. Concentrations of PAHs were detected above the RES DEC, I/C DEC and GB PMC at each hand auger location. Benzo(a) pyrene exceeded the SEH Condition Notification Threshold Concentration in HA-01A, HA-02, and HA-03 within the footprint of the former Coal Shed within the Inner Substation. Fill materials including ash and coal fragments, were observed in soils collected from hand auger borings completed to a depth of 2 feet below grade.
- Soils containing fill materials including brick, coal fragments, ash, were observed in soils collected from the central, southern and eastern potions of the Inner Substation. Shallow soils with cobbles were observed in the northern and western portion of the Inner Substation. Concentrations of PAHs, ETPH and total arsenic

exceeded RSR criteria within the soils containing fill material to 7 feet below grade. Fill material was encountered in the footprint of the former Generator House in SB-47 to a depth of 11 feet below grade.

- Concentrations of PAHs were detected above the RES DEC, I/C DEC and GB PMC in soil samples collected to between 2 and 7-feet below grade within soils that contained fill including soil borings: SB-33 (5 to 7 feet), B-34 (2 to 4 feet), B-35 (5 to 7 feet), B-36 (2 to 4 feet), SB-38 (5 to 7 feet), SB-43 (0.5 to 2 feet and 5 to 7 feet), and SB-46 (5 to 7 feet) and hand auger soil borings HA-07A (0 to 1 foot), HA-09A (2 to 2.5 feet) and HA-10 (2 to 2.5 feet).
- Concentrations of ETPH were detected above the RES DEC, I/C DEC and or the GB PMC in SB-33 (5 to 7 feet), B-34 (2 to 4 feet), B-35 (5 to 7 feet), SB-43 (5 to 7 feet) and) and hand auger soil borings HA-07A (0 to 1 foot), HA-09A (2 to 2.5 feet) and HA-10 (2 to 2.5 feet).
- Concentrations of total arsenic were detected above the RES DEC and I/C DEC in soil borings SB-33 (5 to 7 feet), B-34 (2 to 4 feet), B-35 (5 to 7 feet), B-36 (2 to 4 feet), SB-43 (0.5 to 2 feet), and SB-46 (5 to 7 feet) and hand auger soil borings HA-09A(2 to 2.5 feet), HA-10 (2 to 2.5 feet) and HA-11 (1 to 2 feet). Elevated concentrations of lead ranging from 49.1 to 106 mg/Kg below the RES DEC. SPLP arsenic and lead were either not detected or detected below the GB PMC.
- VOCs were detected in soil borings advanced in the shallow fill within SB-33 (5 to 7 feet), B-34 (2 to 4 feet), B-35 (5 to 7 feet), B-36 (2 to 4 feet). Concentrations of benzene exceeded the GB PMC in SB-33 (5 to 7 feet) and SB-34 (2 to 4 feet). Petroleum-related VOCs were also detected in SB-33 through SB-36 at concentrations below the GB PMC and RES DEC. Concentrations of tetrachloroethylene (PCE) were detected in shallow soil samples collected from B-34 (2 to 4 feet), B-35 (5 to 7 feet), SB-42 (2 to 4 Feet), SB-43 (0.5 to 2 feet), SB-44 (1 to 3 feet) at concentrations below the GB PMC and RES DEC.

Delineation of Coal Tar/Petroleum Impacts Along the Sewer Line

Additional Phase III soil borings, SB-33 through SB-40A were advanced to assess subsurface soil impacts (sheens with petroleum and/or coal tar-like odor) that were observed in from approximately 5 feet to 21 feet below grade in the southwestern portion of the Inner Substation (AOC-11) near the sewer main that transverses the site. A sheen and coal tar-like odor were observed between 19 and 24.5 feet below grade in SB-10 to the south of 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.

The invert for the sewer main is located between approximately 10.2 feet below grade within Maple Street to approximately 6.6 feet below grade within the Inner Substation. Sewer discharge flow is westward from Maple Street to West Street. The sewer line continues westward beneath the off-site property located at 59/61 West Street and West Street.

Soils with sheens and/or coal tar odors were encountered in SB-33 to westward to SB-36 from 11.5 feet to 20 feet below grade below the apparent watertable within the Inner Substation Area. Soils exhibiting a sheen with coal tar odors were observed in SB-38 from 10 to 11 feet below grade at the southwest property boundary and in SB-40 from 8 to 15 feet below grade along the western site boundary. Fill material, ash, coal and brick. was observed in soil borings in the vicinity of the sewer line in soil borings SB-39, SB-40 and SB-40A to 4 feet below grade.

Soil samples were collected at the apparent water table at SB-38 and SB-40A. Concentrations of individual PAH compounds, chrysene in SB-38 (5 to 7 feet) and benzo (a) pyrene in SB-40A were detected above the RES DEC, I/C DEC, and/or GB PMC. Concentrations of multiple PAHs were detected in SB-39 (3 to 5 feet) within fill material above the RES DEC, I/C DEC, and/or GB PMC. ETPH was detected in SB-40A at 230 mg/Kg below RSR criteria but was detected above the RES DEC in SB-39 within the fill material.

Cyanide was detected in SB-38 at 3.55 mg/Kg and in a duplicate soil sample for SB-39 at 2.33 mg/Kg below RSR criteria.

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 bank of the Hockanum River. Soils in this area of the site contained concentrations of PAHs and/or ETPH above RSR criteria. Phase III ESA investigations in this area included the advancement of the following:

- Five soil borings, SB-32, SB-48, SB-49, SB-50 and SB-51 within the grassed area of the Outer Substation.
- Seven hand auger borings, HA-12 through HA-18, along the bank of the Hockanum River.
- Four soil borings, SB-54 through SB-58, located on the overgrown West Main Street Parcel.

Fill material including coal, slag and ash were observed in SB-32 and SB-48 through SB-51 from 2 feet to as deep as 10 feet below grade. Concentrations of PAHs and ETPH were detected above the RES DEC, I/C DEC and/or the GB PMC in SB-32 (2 to 4 feet) and SB-51 (2 to 4 feet). Concentrations of arsenic were detected in each of the soil borings above the RES DEC and I/C DEC. In SB-50, coal tar material was observed in soils mixed with brick and wood piping. Sheens and coal tar blebs were observed from 15 to 17 feet below grade and sheens and coal tar odors were observed from 17 feet to 25 feet below grade. Further to the east in SB-51, petroleum odors and grey staining were observed in SB-51 from 14 to 17 feet below grade. Sheen, coal tar blebs and/or coal tar odors were observed from 17 to 20 feet below grade.

Soils with fill materials were observed along the Hockanum River bank. Hand auger samples were collected from 0.5 to 4 feet below grade. Concentrations of PAHs were detected above the Res DEC, I/C DEC, and GB PMC in each hand auger location with the exception of HA-15. HA-18 (1 to 2 feet) had elevated concentrations of PAHs. Benzo (a) pyrene was detected at 86 mg/Kg which exceeds the SEH Condition Notification Threshold Concentration of 30 mg/Kg. This information was transmitted to CTDEEP in an e-mail from Tighe & Bond on December 28, 2018. CTDEEP responded via e-mail on December 28, 2018 indicating that the discovery of additional subsurface soils above the

SEH Condition Threshold Concentration at HA-18 are covered under the February 26, 2018 SEH Notification and that a separate SEH Notification was not required.

ETPH was detected above the RES DEC, I/C DEC and/or the GB PMC in HA-16 and HA-18. Arsenic was detected above the RES DEC and I/C DEC in HA-15, HA-16 and HA-18. Leachable lead was detected above the GB PMC.

To the south of the Hockanum River, fill materials including coal, ash and brick were observed in soil borings SB-54 to SB-57 to as deep as 8 feet below grade. Concentrations of PAHs were detected above the RES DEC, I/C DEC and GB PMC in SB-54, SB-55, SB-56 and SB-58 in samples collected between 0.5 and 4 feet below grade.

Assessment of Soils in Vicinity of Gas Holder #1 and Gas Holder #2

Six soil borings, SB-28 through SB-31, SB-65 and MW-24S, were advanced adjacent to the Relief Holder No.1 and No.2 to assess shallow fill and coal tar impacts above the groundwater table.

Soil with fill materials, coal, ash, brick, slag, were encountered from 1 foot below grade to 7 feet below grade in SB-28 through SB-31 and MW-24S. Glass fragments were observed in the top 3 feet of SB-65. Concentrations of PAHs were detected above the RES DEC, I/C DEC and GB PMC. ETPH was detected above the RES DEC, I/C DEC and/or the GB PMC in shallow soil samples from SB-29 through SB-31 and SB-65. Benzene was detected above the GB PMC in SB-29 (1 to 3 feet). Arsenic was detected above the RES DEC and I/C DEC in SB-28 and SB-32. Leachable arsenic was not detected. Concentrations of cyanide were detected in shallow soil samples at concentrations below the RES DEC.

Coal tar impacts, sheen and coal tar odors, were observed in SB-31 between 11 feet and 15 feet below grade within a silty-sand and silt layers that are situated above the groundwater level of approximately 15 feet below grade in MW-9S. Coal tar impacts were observed at the apparent water table in SB-28, SB-31, and SB-65. Coal tar impacts, blebs and odors, were observed from 25 feet to 36.5 feet below grade in SB-28 and staining and sheen was observed from 15 to 24 feet below grade. Coal tar impacts were observed in SB-65 from 17 to 25 feet below grade where the boring was terminated. SB-65 is located topographically downgradient from Relief Holder #1 and Relief Holder #2. Soil samples were collected just above the apparent watertable in SB-28 through SB-31. Concentrations of PAHs were detected above the GB PMC in SB-28, SB-29 and SB-31. ETPH was detected above the GB PMC in SB-31 (15 to 17 feet). VOCs were detected at concentrations below RSR criteria in SB-31 (15 to 17 feet).

2.2.2 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 2018. Figures 7, 8, and 9 provide a groundwater contour maps and inferred flow direction for the shallow (water table), deep overburden aquifer and bedrock aquifer beneath the site and off-site areas of investigation based upon October 2018 gauging data. Groundwater flow is northward to north-northwest in the shallow (water table), deep overburden and bedrock aquifer. Groundwater flow in the deep overburden and bedrock aquifers has a north-northwest component along Maple Street.

Coal tar staining and blebs were measured with an oil-water interface probe in the following monitoring wells during groundwater gauging events:

- Water table Monitoring Wells: MW-10SR, MW-20S, MW-24S
- Deep Monitoring Wells:MW-02D, MW-03D, MW-10M, MW-10D

Measurable coal tar was present in MW-2D, MW-3D, MW-10SR and MW-10D during the spring monitoring event.

As a result, these monitoring wells were not sampled during 2018.

During the fall sampling event, measurable tar was present in MW-10SR and MW-10D. In the remaining wells listed above, coal tar staining was observed on the oil-water interface probe during gauging.

Shallow (Water table) Monitoring Wells

2018 Spring Monitoring Event
VOCs were detected in 11 of the 16 on-site monitoring wells. The highest VOC concentrations occurred in MW-09S located in the east central portion of the site adjacent to the former Purifying House, Generator House and Gas Holder #1. Concentrations of 1,2,4-trimethylbenzene, naphthalene, and total xylenes were detected in MW-09S at concentrations above the SWPC. Concentrations of VOCs were also detected above the SWPC and/or the Res VC in the following wells (Figure 7):

- MW-7S at the eastern boundary adjacent to Maple Street;
- MW-3S located within Outer Substation at the northwest site boundary; and
- MW-30S located adjacent to the Inner Substation and western site boundary with 59/61 West Street.

VOCs were not detected in MW-11 and MW-12 upgradient of the Inner Substation to the south of the Hockanum River, MW-08SR within the Inner Substation, and MW-06S located adjacent to the Inner Substation near the Hockanum River. Chlorinated VOCs, chloroform and tetrachloroethene were detected at concentrations below the RSR criteria in MW-16S, MW-17S and MW-4S within or directly adjacent to the Inner Substation. Chlorinated VOCs are not associated with MGP sites and these are possibly from an upgradient source.

Concentrations of PAHs were detected in 11 of 13 shallow monitoring wells. Detected concentrations of one or more PAH compounds exceeded the SWPC in the following ten monitoring wells (Figure 7):

- Inner Substation: MW-2SR, MW-5S, and MW-8SR and;
- Outer Substation: MW-1S, MW-3S, MW-4SR, MW-7S, MW-9S, 25S, and MW-30S

The highest PAH concentrations were detected in MW-9S which is located adjacent to the former Purifying House (AOC-2) and former Relief Holder No.1 (AOC-3). Acenaphthylene was detected in MW-30S at the western site boundary adjacent to 59/61 West Street and PAHs were detected in MW-7S on the eastern site boundary and in MW-1S along the western and northern site boundary, respectively. As with VOCs, PAHs were not detected in MW-11S and 12S located to the south, upgradient of the Hockanum River and MW-06S located adjacent to the Inner Substation and Hockanum River.

ETPH was detected in 6 of 13 shallow monitoring wells sampling during the spring sampling event. Concentrations of ETPH exceeded the SWPC and/or the Res VC in MW-3S, MW-5S, MW-7S, and MW-9S. The highest concentration of ETPH was detected in MW-9S downgradient of the former Purifying House and adjacent to Relief Holder No. 1.

Total cyanide was detected in 2 of 13 monitoring wells sampled during the spring sampling event. Cyanide was detected at 62 µg/L above the SWPC in MW-9S downgradient of the former Purifying House (AOC-1).

Metals, including barium, total chromium, nickel and or zinc were detected in each of the shallow monitoring wells at concentrations well below the SWPC. In addition, copper was detected in MW-8SR at 8 µg/L well below the SWPC.

2018 Fall Monitoring Event

Three monitoring wells, MW-24S, MW-25S, and MW-30S, were installed and MW-4S was reinstalled with replacement (MW-4SR) (Figure 7). Groundwater samples were collected from each monitoring well except for MW-24. Coal tar blebs and staining were observed in MW-24S during development and as a result was not sampled.

VOCs were detected at concentrations below the SWPC and Res VC in MW-30S at the western property boundary. PCE was detected in MW-4SR. VOCs were not detected in MW-25S.

Acenaphthylene was detected in MW-30S and MW-4SR at concentrations above the SWPC (Figure 7). Other PAH compounds were detected in each of the monitoring wells at concentrations below the SWPC.

EPTH was detected in MW-30S at 550 µg/L and 640 µg/L above the SWPC and Res VC. ETPH was not detected in MW-25S and MW-4SR.

Cyanide was detected in MW-4SR and MW-25 at 13 and 14 µg/L at concentrations below the SWPC. Cyanide was not detected in MW-30S.

Metals, barium and/ zinc were detected at the monitoring wells at concentrations below the SPWC.

Deep Monitoring Wells

2018 Spring Monitoring Event

VOCs were not detected in the deep monitoring wells with the exception of MW-10M located adjacent the 22,000 ft^3 gas holders (AOC 3 and AOC 4) and within MW-18D at the northwest property boundary. Concentrations of naphthalene and toluene were detected in MW-10M at concentrations below the SWPC. Naphthalene was detected at 290 µg/L in MW-18D above the SWPC. Concentrations of PAHs and/ or individual SVOCs were detected in MW-6D, MW-7D, MW-12D and MW-18D. In MW-18D, acenaphthylene was detected at 4.2 µg/L above the SWPC of 0.30 µg/L (Figure 8)

ETPH was only detected in MW-5D within the Inner Substation and MW-18D at the northeastern site boundary. ETPH was detected in MW-5D at 74 µg/L below the SWPC. ETPH was detected at 890 µg/L above the SWPC in MW-18D.

Metals, barium, chromium, copper, lead, nickel vanadium and/or zinc were detected in deep monitoring wells at concentrations below the SWPC in each well with the exception of MW-1D near the northern property boundary. Copper and nickel were detected above the SWPC in MW-1D. The concentrations of these metals and elevated metals in MW-1D appear to be related to turbid groundwater conditions at the time of the sample. Cyanide was not detected in deep on-site monitoring wells.

MW-2D, MW-3D and MW-10D were not sampled because coal tar observations were noted within the monitoring wells during 2018 (Figure 8).

2018 Fall Monitoring Event

MW-07D and MW-18D were resampled during the fall of 2018. VOCs, PAHs, ETPH and cyanide were not detected in MW-07D in the fall sampling event. In MW-18D, concentrations of VOCs, including benzene, naphthalene and total xylenes were detected above the SWPC (Figure 8). PAHs including, naphthalene, 2-methylnaphthalene, acenaphthylene and phenanthrene and EPTH were detected above the SWPC. Cyanide was not detected.

Bedrock Monitoring Wells

Three bedrock monitoring wells, MW-02BR, MW-03BR and MW-10BR were sampled during 2018. Groundwater samples were collected from MW-02BR, MW-03BR, and MW-10BR during the May 2018 sampling event. MW-03BR and MW-10BR also re-sampled during the fall sampling event.

2018 Spring Monitoring Event

VOCs were not detected in MW-02BR during the spring sampling event. VOCs were detected in MW-03BR and MW-10BR at concentrations below the SWPC. VOCs, including benzene, ethylbenzene, naphthalene, and/or toluene were detected in MW-03BR and MW-10BR. Carbon disulfide was detected in MW-02BR and chloroform was detected in MW-10BR.

PAHs were not detected in MW-02BR during the spring sampling event. Acenaphthylene was detected in MW-10BR at 0.41 above the SWPC. The remaining PAHs were detected in MW-03BR and MW-10BR at concentrations below the SWPC (Figure 9).

ETPH was not detected in MW-02BR and MW-03BR. ETPH was detected at 340 µg/L in MW-10BR which exceeded the SWPC of 0.250 µg/L.

Metals, including barium, lead, vanadium and zinc were detected in the bedrock wells at concentrations below the SWPC. Total chromium was detected in MW-03BR and MW-10BR at 7 µg/L and 66 µg/L, respectively. Total cyanide was not detected in groundwater in the bedrock monitoring wells during the sampling event.

2018 Fall Monitoring Event

VOCs, PAHs, ETPH were not detected MW-03BR during the fall sampling event. In MW-10BR, chloroform (VOC), PAHs, and ETPH were detected at concentrations below the

SWPC. PAHs were not detected in MW-03BR but were detected at concentrations below the SWPC in MW-10BR. Barium was detected in MW-03BR and MW-10BR below the SWPC. Total chromium was detected in MW-03BR and MW-10BR at 5 µg/L and 1 µg/L, respectively. Total cyanide was not detected in either MW-03BR and MW-10BR.

Hockanum River Sediments

Sediment samples were collected from outfall pipes that discharge to the Hockanum River upgradient of the site to assess discharge sources to sediment to the river

- SED-7 was collected at the base of the plastic outfall pipe from Maple Street. that conveys drainage from upgradient properties
- SED-8 was collected from with the stone masonry constructed outfall at Maple Street. The outfall was associated with the former Hockanum Mill that reportedly discharged to the Hockanum River during the operation of the mill
- SED-9 was collected from concrete outfall pipe located near the intersection of the Maple Street and West Main Street.

One VOC, toluene, was detected at 24 mg/Kg in SED-09. VOCs were not detected in the remaining sediment samples. PAHs detected in each of the sediment samples. Concentrations of total PAHs ranged from 8.18 mg/Kg SED-07 to 26.57 mg/Kg in SED-08. Concentrations of metals including barium, copper, total chromium, lead, mercury, nickel, vanadium and zinc. The highest concentrations of metals occurred in SED-09. ETPH was detected in each sediment sample ranging from 79 mg/Kg in the duplicate of SED-07 to 630 mg/Kg in SED-09. PCBs were not detected.

Sediments SED-6A, SED-6B and SED-6C were collected to assess for copper concentrations in the vicinity of SED-06 location collected during the 2017 Phase III ESA. Concentrations of copper were detected at 22.1 mg/Kg, 28.9 mg/Kg and 83.7 mg/Kg in the sediment samples.

2.3 Off-Site Investigation and Findings

In 2018, off-site Phase III ESA investigations were completed to further assess the extent of coal tar-related soil and groundwater impacts beneath three privately-owned properties to the north and northwest of the site. Additional investigations were completed within the Maple Street ROW to the northeast and the USPS Access Road ROW located to the east of the site. A summary of off-site investigations is provided in the table below by location.

Location	Soil Borings	Monitoring Wells
51 West Street [Residence]	SB-60	No monitoring well installed
St. Joseph's Church [Parking Lot]	SB-61, SB-62, SB-66 and SB-67 MW-26S and 26D	MW-26S, MW-26D and MW-26BR Existing wells: MW-14S, MW-14D, MW-13S and MW-13D, MW-21S
17 Maple Street [Residence]	SB-63	MW-27S

	MW-27S (boring)	
Maple Street ROW	SB-64	MW-28S
USPS Access Road ROW	MW-23S (boring)	MW-23S

Eversource conducted outreach with off-site private property owners to secure access during the 3rd quarter of 2018. Once access was secured, each location was marked out for public utilities by CBYD and marked out by Underground Survey prior to commencing drilling activities.

Off-site soil impacts to the north of the site beneath the St. Joseph Church 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

51 West Street

One soil boring, SB-60, was advanced on 51 West Street to add the lateral extent of coal tar impacts to the west of the site. SB-60 was advanced to 55 feet below grade. A soil sample was collected from SB-60 (40 to 42 ft) at the depth consistent with coal tar impacts observed in SB-13 at the northwestern corner of the site during the Phase III ESA. VOCs were detected with the PID at 3.6 ppm at 40 feet during field screening of soil samples from the boring. VOCs, naphthalene and xylene, were detected at 0.16 mg/Kg and 0.0064 mg/Kg, respectively. These concentrations were well below the RES DEC; however, the RSRs are not applicable to soils below 15 feet. ETPH and PAHs were not detected in the sample.

St. Joseph Church Parking lot

Four soil borings, SB-61, SB-62, SB-66, and SB-67 were advanced in the parking lot area. Three of the four boring (SB-61, SB-66, and SB-67) were advanced in the central portion of the property near the maintenance garage. The fourth soil boring, SB-62, was advanced on the eastern edge of the parking lot adjacent to the boundary with 17 Maple Street residence. Soil borings for three monitoring wells, MW-26S, MW-26D and MW-26BR, were advanced at the southern corner of the property.

Soils with visual coal tar impacts were observed in SB-61 from 22.5 to 29 feet below grade and from 30 to 44 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. and with Tighe & Bond's 2017 investigation. Visual evidence of coal tar impacts was not observed in SB-66, and SB-67 which define the extent of impacts within the St. Joseph Church Parking Lot. Coal tar odors were observed in SB-66 from 20 feet to 35 feet below grade.

Petroleum-related VOCs, ETPH and PAHs were detected in SB-61 (23 to 25 feet) within soils that contained visual coal tar impacts and odors below the water table. However, because of the deep nature of the impacts below the water table RSR criteria does not apply. ETPH and PAHs were not detected in soil samples collected from SB-66 (27 to 29 feet) and SB-67 (23 to 25 feet). VOCs were detected in SB-66 (27 to 29 feet) and were

not detected in SB-67 (23 to 25 feet). The soil samples were collected at similar elevations as SB-61 based upon surface elevation changes.

At the eastern portion of the property in SB-62, visual evidence of coal tar impacts was not observed in SB-62 which defines the eastern extent of impacts within the St. Joseph Church Parking Lot. VOCs, PAHs and ETPH were not detected in a sample collected from SB-62 (31 to 33 feet). At the western portion of the property, no visual impacts or elevated PID readings were observed during the installation of MW-26S and MW-26D within overburden soils.

17 Maple Street

One soil boring, SB-63, was advanced to 45 feet below grade in the backyard of 17 Maple Street. No evidence of coal tar impacts was observed, and no elevated PID measurements of VOCs in soils from SB-63.

A soil sample was collected at 35 to 37 feet below grade which coincides with coal tar impacted layer observed in the nearby monitoring MW-20S in the St. Joseph Church Parking Lot. VOCs, PAHs, and ETPH were not detected. These results are consistent with results from SB-17 that was advanced further to the west within the backyard area on the property in the 2017 investigation.

Maple Street ROW Area

One soil boring, SB-64, was advanced to 50 feet below grade within the Maple Street ROW.

Previous investigations encountered a combination of apparent petroleum and coal tar impacts were noted within Phase III ESA SB-18 and previous soil borings within the Maple Street ROW. During the 2017 Phase III ESA investigation, staining with strong petroleum odors were in nearby soil boring 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 further to the south 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.

A soil sample was collected from SB-64 (38.5 to 40 ft) at the depth consistent with coal tar impacts observed in MW-20S within the St. Joseph Church driveway to the northwest. VOCs were not detected with the PID during field screening of soil samples from the boring. VOCs, ETPH and PAHs were not detected in the sample.

2.3.2 Off-site Groundwater Impacts

Off-site groundwater impacts (AOC-23) are summarized below by respective areas: St. Joseph Church property, 17 Maple Street and the Maple Street ROW.

St. Joseph Church Property

Four monitoring wells (MW-14S, MW-14D, MW-19S, and MW-21S) were sampled during the spring sampling event. MW-13S and MW-13D were not sampled during the spring

event because MW-13D was paved over and MW-13S was filled with sediment because of a damaged manhole on the flush-mounted road box. MW-14S and MW-14D were also noted as having damaged road boxes. MW-13S, MW-13D, MW-14S, and MW-14D were developed in 2018 as part of the Phase III ESA.

Seven monitoring wells were sampled during the 2018 sampling event. Four existing monitoring wells, MW-13S, MW-13D, MW-14S, and MW-14D and three newly installed monitoring wells, MW-26S, MW-26D and MW-26BR were sampled during the fall event in 2018.

MW-20S was not sampled during 2018 Phase III ESA activities because coal tar was observed during the development of the monitoring well in 2017.

Shallow (Water table) Monitoring Wells

2018 Spring Sampling Event

VOCs and ETPH were not detected in MW-14S, MW-19S and MW-21S. Low levels of PAHs (naphthalene, phenanthrene, and/or acenaphthene) at concentrations below the SWPC. Bis(2-Ethylhexyl)phthalate, a plasticizer, was detected in MW-19S. This detection could be related to a possible lab contaminant. Total cyanide was detected at 14 µg/L in MW-14S below the SWPC. Total cyanide was not detected in MW-19S and MW-21S.

Metals, including barium, total chromium, nickel, and/or zinc, were detected but were at concentrations below the SWPC.

2018 Fall Sampling

VOCs, PAHs and ETPH were not detected in MW-13S, MW-14S, and MW-26S. Total cyanide was detected at 14 µg/L in MW-14S. Total cyanide was not detected in MW-13S and MW-26S.

Bis(2-Ethylhexyl)phthalate, a plasticizer, was detected in MW-13S and diethylphthalate was detected in MW-13S. These are identified by CTDEEP as common laboratory contaminants.

Metals, including barium, total chromium, copper, nickel, and/or zinc, were detected but were at concentrations below the SWPC. Total cyanide was not detected in MW-13S and MW-26S.

Deep Monitoring Wells

2018 Spring Sampling Event

Petroleum-related VOCs and PAHs were detected in MW-14D at concentrations below RSR criteria. Total cyanide was detected at 69 µg/L above the SWPC of 52 µg/L. ETPH was detected at 160 µg/L, Metals, including barium, total chromium, copper, nickel, and/or zinc, were detected but were at concentrations below the SWPC.

2018 Fall Sampling

Petroleum-related VOCs and 1,1,1-Trichloroethane, a chlorinated VOC, were detected in MW-14D at concentrations below RSR criteria. Naphthalene and chloroform (chlorinated VOC) was detected at 1.3 µg/L, respectively in MW-26D below the RSR criteria. VOCs were not detected in MW-13D.

Acenaphthylene was detected above the SWPC in MW-14D and MW-26D. The remaining detections of PAHs were detected in each monitoring well at concentrations below the SWPC. ETPH was detected at 320 µg/L in MW-14D above the SWPC of 250 µg/L. ETPH was not detected in MW-13D and MW-26D. Total cyanide was not detected in deep monitoring wells during the fall sampling.

Metals, including barium, nickel, vanadium and/or zinc, were detected but were at concentrations below the SWPC. Total chromium was detected between 4 µg/L and 53 µg/L.

Bedrock Monitoring Well

VOCs, ETPH and cyanide were not detected in MW-26BR. Naphthalene was detected at 0.1 µg/L, the laboratory detection limit and well below the SWPC of 210 µg/L. Barium was detected below the SWPC and total chromium was detected at 2 µg/L.

17 Maple Street

MW-27S was installed on October 1, 2018. VOCs and cyanide were not detected in MW-27S. Naphthalene (PAH) was detected at 0.15 µg/L and ETPH was detected at 69 µg/L. Both concentrations were below the SWPC.

Metals, barium, nickel and zinc, were detected but at concentrations below the SWPC.

Maple Street ROW

MW-28S was installed on July 30, 2018 and was sampled as part of the 2018 fall sampling event. VOCs, ETPH, and cyanide were not detected in MW-28S. Naphthalene (PAH) was detected at 0.1 µg/L below the SWPC of 210 µg/L. Barium and nickel were detected at concentrations below the SWPC.

MW-23S was sampled as part of the 2018 spring sampling event. MW-23S is along the U.S.P.S Access Road to the east of the site. VOCs, PAHs, ETPH and cyanide were not detected in MW-23S. Metals, including barium, total chromium, nickel, vanadium, and zinc, were detected but were at concentrations below the SWPC.

Section 3
Quality Assurance / Quality Control

Quality assurance/quality control (QA/QC) 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 the collection/submittal of blank samples (equipment blank and trip blank samples) for groundwater. Duplicate sample results are provided next to the primary sample on Table 2 through Table 4, respectively.

Phase III ESA samples were analyzed by Phoenix in accordance with CTDEEP's RCPs. Each laboratory analytical data package contains a Laboratory Analysis QA/QC Certification Form which indicates that the 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. A chain of custody accompanied the samples from collection to the laboratory.

The RCP analytical data packages provide a summary of QA/QC within the back of each data analytical data package. Tighe & Bond conducted an initial assessment of each laboratory report summarizing any preliminary issues such as proper reporting units, meeting necessary reporting limits, and following proper sample management. These tables are provided at the beginning of Appendix D. During our initial review of the laboratory reports the following issues were identified:

- Dilutions were required for several SVOCs, VOCs, and ETPH in various soil samples due to matrix interference or the presence of target and/or non-target compounds. Due to the dilutions, various samples had elevated reporting limits.
- Some soil samples exhibited suppression of the last internal standard in the low-level VOCs analysis; the affected compounds were reported from the high-level VOA. This resulted in some elevated reporting limits.
- The VOA for soil sample HA-10 (2-2.5') was received with pH <12. pH was adjusted at the lab; however, bias cannot be ruled out.

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. A summary of all non-conformances is included as Table 6 in Appendix B. A description of site-related COC non-conformances is provided below.

The following non-conformances were identified for soil samples:

- Metals (Arsenic, Nickel, Mercury, Barium, Copper, and Lead)
    - In samples DUP-102, HA-10 (2-2'), HA-11 (1-2'), SB-34 2-4 FT, SB-35 (5-7 FT), SB-38 (5-7 FT), SB-39 (3-5 FT), SB-40A (5.5-7.5 FT), SB-41 1-3 FT, SB-42 2-4 FT, SB-44 (10-12`), SB-44 1-3 FT, SB-45 0-2 FT, SB-46 (5-7 FT), SB-47 2-4 FT, SB-53 (3-5 FT), SB-65 1-3 FT, laboratory

sample/duplicate RPDs exceeded the method criteria; as such, variability is possible. Copper was reported in a laboratory blank causing a possible high bias in sample SB-33(5-7ft). The bias does not affect data usability because the sample results were either not detected or well below applicable criteria.

- PAHs
    - Some PAH compounds in samples SB-36 (2 to 4 feet) and SB-37(2 to 4 feet) had elevated Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) RPDs; as such, variability is possible. The data usability is not likely affected because sample results appear consistent with nearby samples.

The following non-conformances were identified for groundwater samples:

- CT ETPH
    - In laboratory report GCA58993, the sample collected from MW-14D had poor surrogate recovery; as such, a low bias is possible. CT ETPH was reported in MW-14D at a concentration of 160 µg/L. The applicable criteria for CT ETPH is 250 µg/L; as such, it is plausible that without the bias, MW-14D could have exceeded the applicable criteria. In the fall sampling event CT ETPH was reported above applicable criteria in MW-14D.
- SVOCs
    - In laboratory report GCA51710, the sample collected from MW-4S had elevated surrogate recovery; as such, a high bias is possible. Data usability was not likely affected because SVOCs were not reported above laboratory reporting limits in the sample from MW-4S.
    - In laboratory report GCB96386, the samples collected from MW-14D, MW-14S, and the filtered and unfiltered samples from MW-26D and MW-30S had poor surrogate recovery; as such, a low bias is possible. Four of the six samples had SVOCs at concentrations above applicable criteria, the remaining two samples did not have SVOCs reported at concentrations above laboratory reporting limits. Results for these samples were consistent with previous sampling events. It is unlikely that the data usability was affected.
    - In laboratory report GCA61339, naphthalene was reported in the laboratory blank referenced to samples MW-3BR, MW-10BR, MW-18D, and MW-23S; as such, a high bias for naphthalene is possible. Data usability is not likely affected because naphthalene was not reported at concentrations near the applicable criteria in the above samples.

There were some variations in the relative percent difference (RPD) for soils and groundwater. The majority of the RPDs were within the acceptable range for the majority of the compounds. There were some compounds in soils and groundwater that were detected outside the 50% RPD for soils and groundwater. This is attributable to collection of shallow subsurface soils within soils within fill material which is highly variable. Variations in groundwater could be attributable to slight variations in turbidity during sampling.

Equipment blanks were collected during the spring and fall groundwater sampling events. Zinc was detected at 7 µg/L and bis(2-Ethylhexyl) phthalate was detected at

2.6 µg/L in the May 30, 2018 sampling event. These are identified as common laboratory contaminants by the CTDEEP. Naphthalene was detected at 0.14 µg/L just above the detection limit of 0.10 µg/L in the equipment blank for the bladder bump for the October 24, 2018 sampling. Groundwater wells sampled with this equipment could have a high bias. VOCs were not detected in trip blanks.

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; and
- Data and rationale to support conclusion.

Table 5 provides a preliminary CSM summary that was developed for the Rockville MGP site and has been updated based upon the findings of the 2018 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) were not assessed during the Phase III ESA because the petroleum impacts appear to be tied to a LUST record for a 1,000-gallon heating oil UST at #8 Maple Property that 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). The findings were provided in the 2017 Annual Report.

The 2017 Annual Report recommended additional efforts will be made to assess if the water supply well record identified for 13 Windsor Avenue was still in service and being utilized by the property owner (Figure 10). The private well record is provided below:

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.

Eversource contacted the property owner to assess if the water supply well was still in service. The owner, Mr. John Regina, indicted that the buildings were connected to city water since the mid-1980s, and water from the well was terminated.

Section 6
Phase III ESA Data Gaps

During the completion of the Phase III ESA in 2018, 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 West of Site: Coal tar impacts sheens and odors were encountered in soil boring in SB-40/ MW-30S at the western boundary of the site. Impacts were encountered between 8 feet below grade and extended to 15 feet below grade. Concentrations of ETPH exceeds the SWPC and RES VC and acenaphthylene (PAH) was detected above the SWPC. Access was not provided to the 59/61 West Street property owner during the 2018 Phase III ESA. A sanitary sewer line is located adjacent to the impacted soil area. The sanitary sewer continues to the west where it crosses West Street.

  Additional delineation of soil and groundwater impacts are needed to the west of the site within the West Street ROW.

- Delineation of Benzo(a) Pyrene above the SEH Threshold Concentrations at HA-18: Benzo(a) pyrene was detected above the SEH Condition Threshold Concentration in a 1 to 2-foot sample collected from HA-18. Delineation of the concentrations of benzo(a) pyrene exceeding the SEH threshold is needed. On December 28, 2018, CTDEEP indicated that discovery of additional soils above the SEH Condition Threshold Concentration are covered under the February 26, 2018 SEH Notification and that a separate SEH Notification is not required.

- Assessment of Extent of PMC 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 and EPTH were detected above the GB PMC. However, these COCs were not detected in groundwater monitoring wells above the SWPC downgradient of the Inner Substation. The RSRs allow for an exemption to the PMC if quarterly groundwater monitoring for COCs is in compliance with the SWPC. Additional assessment is proposed to assess these soils for this RSR exemption.

- On-site Deep Tar Delineation and Groundwater Assessment: Tar impacts were encountered surrounding the Gas Holder #1 and Gas Holder #2 (AOC-3 and AOC-4) and downgradient impacts (AOCs). Bedrock slopes northward toward the St. Joseph Church property. Coal tar blebs were observed in MW-03D and deep groundwater impacts with concentrations exceeding RSR criteria were detected at the northern property line. Investigation is needed to assess the deep extent of coal tar along the northern site boundary.

- Off-site Groundwater Assessment- St. Joseph's Church: ETPH and cyanide were detected in MW-14D above the SPWC and acenaphthylene was detected in MW-26D and MW-14D downgradient of the site. Additional characterization of concentrations in groundwater is needed to assess seasonal changes to

concentrations and extent of impacts. In addition, further groundwater assessment is recommended to assess if ETPH concentrations that are above the GWPC attenuate prior West Street which is the dividing line between GA and GB groundwater areas. Tighe & Bond will utilize the groundwater information to explore an alternate SWPC at downgradient wells to achieve compliance with the SWPC and assessment for the suitability of monitored natural attenuation at the site.

- Water Supply Service: Water supply service was not provided by the Connecticut Water Company for four properties downgradient within a 1,000-foot radius of the site during the water supply well receptor survey completed by Tighe & Bond in 2017.

  Rockville/Vernon:
  - 8 Charter Road Residence

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

Additional efforts will be made to assess if these properties have active water service during 2019.

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 2018 and proposed site investigation and remediation-related activities for 2019 and beyond is provided below.

Rockville Former MGP Site VRP Investigation and Remediation Schedule		
Task	**Completion Timeframe[1].**	**Notes**
Completed in 2018 Calendar Year		
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 follow-up completed at 13 Windsor Avenue.
Off-Site Investigation	3rd and 4th Quarters	
Proposed Schedule for 2019 Calendar Year		
On-site Supplemental Phase III ESA Investigations	1st – 4th Quarters	Additional investigations are needed to assess Phase III ESA data gaps
Off-site Supplemental Phase III ESA Investigations	1st – 4th 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
Remedial Action Plan	4th Quarter	Prepare once Remedial Alternatives and Institutional Controls have been determined
Proposed Schedule for 2020 Calendar Year		
Institutional Controls including application to CTDEEP for approval, ELURs and subordination agreements	2nd and 3rd Quarters	Evaluate Environmental Land Use Restrictions, Engineered Controls, and use of Alternative Criteria, Legal Assistance will be required

Proposed Schedule for 2020 Calendar Year (contd.)		
Public Notice	2rd Quarter	30-day notice required
Bid Documents and Bidding	3rd to 4th Quarters	In accordance with Eversource procedures
Proposed Schedule for 2021 Calendar Year and Beyond		
Remedial Action	1st to 2nd Quarters	Assumes 6-month (Construction) timeframe
LEP Verification	1st to 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	2019, 2020, 2021	Meetings with CTDEEP as needed for approvals

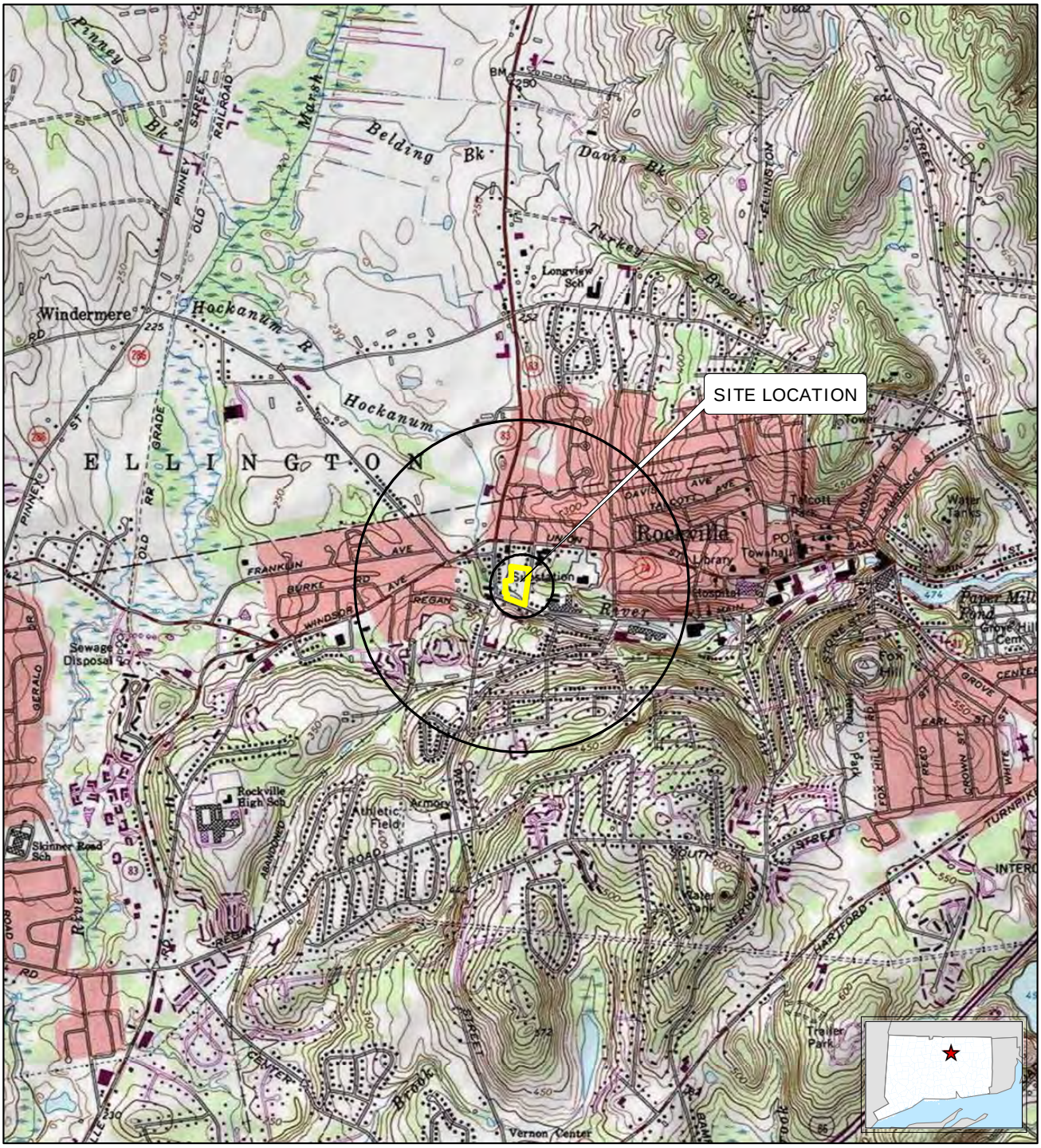
1. Timeframes to complete Tasks are best estimates. In the event that delays prevent the completion of a Task within the estimated Timeframe, CTDEEP will be notified.

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 2019 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

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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 2018

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N-0915

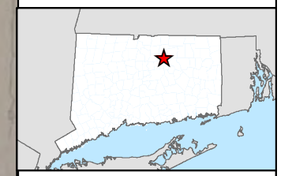


FIGURE 2:
CURRENT SITE CONDITIONS
AND HISTORIC STRUCTURES

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 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 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

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 2018

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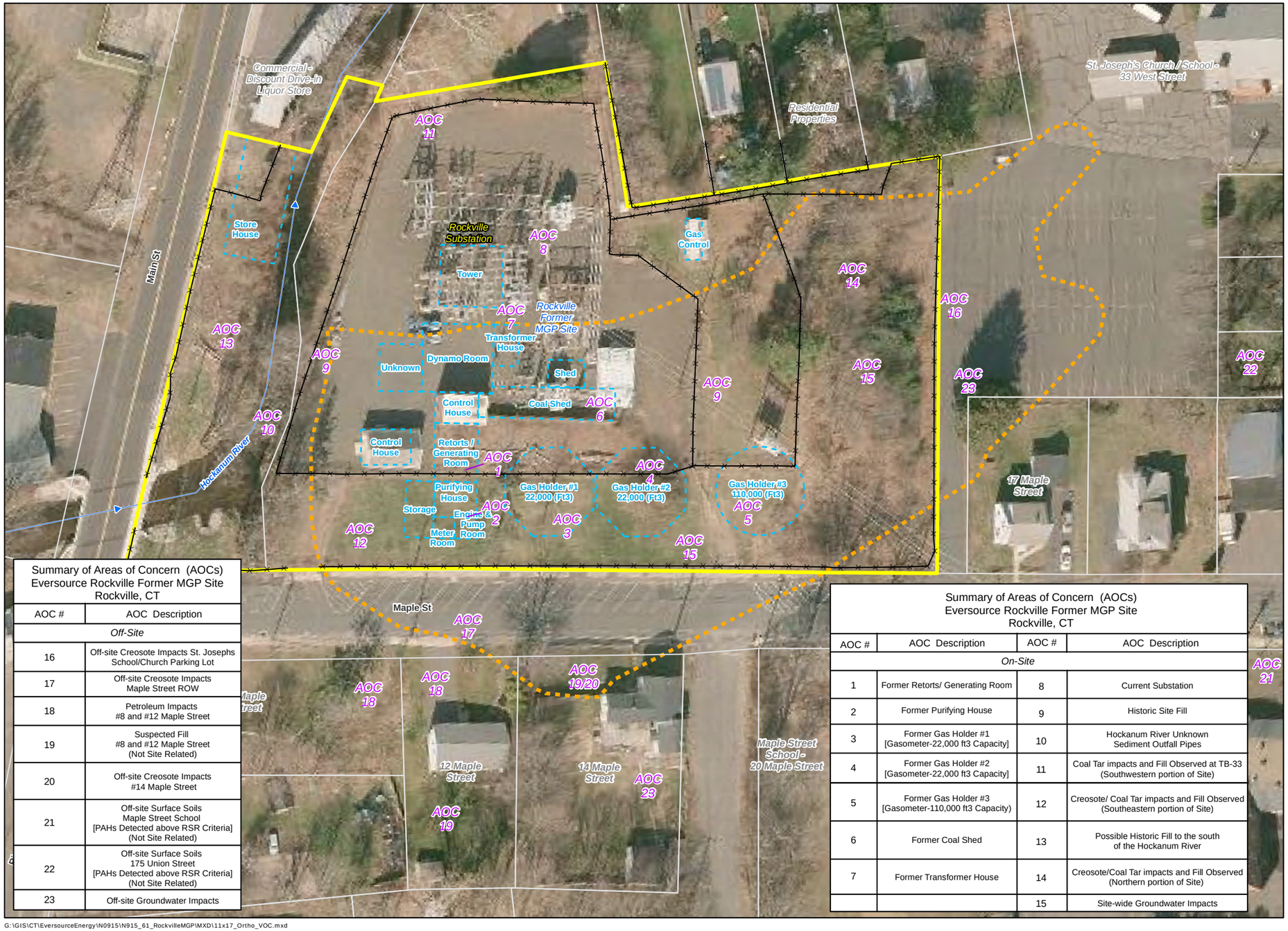

Summary of Areas of Concern (AOCs)
Eversource Rockville Former MGP Site
Rockville, CT

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 2012 Statewide Leaf-Off Orthophotography, Courtesty 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

December 2018

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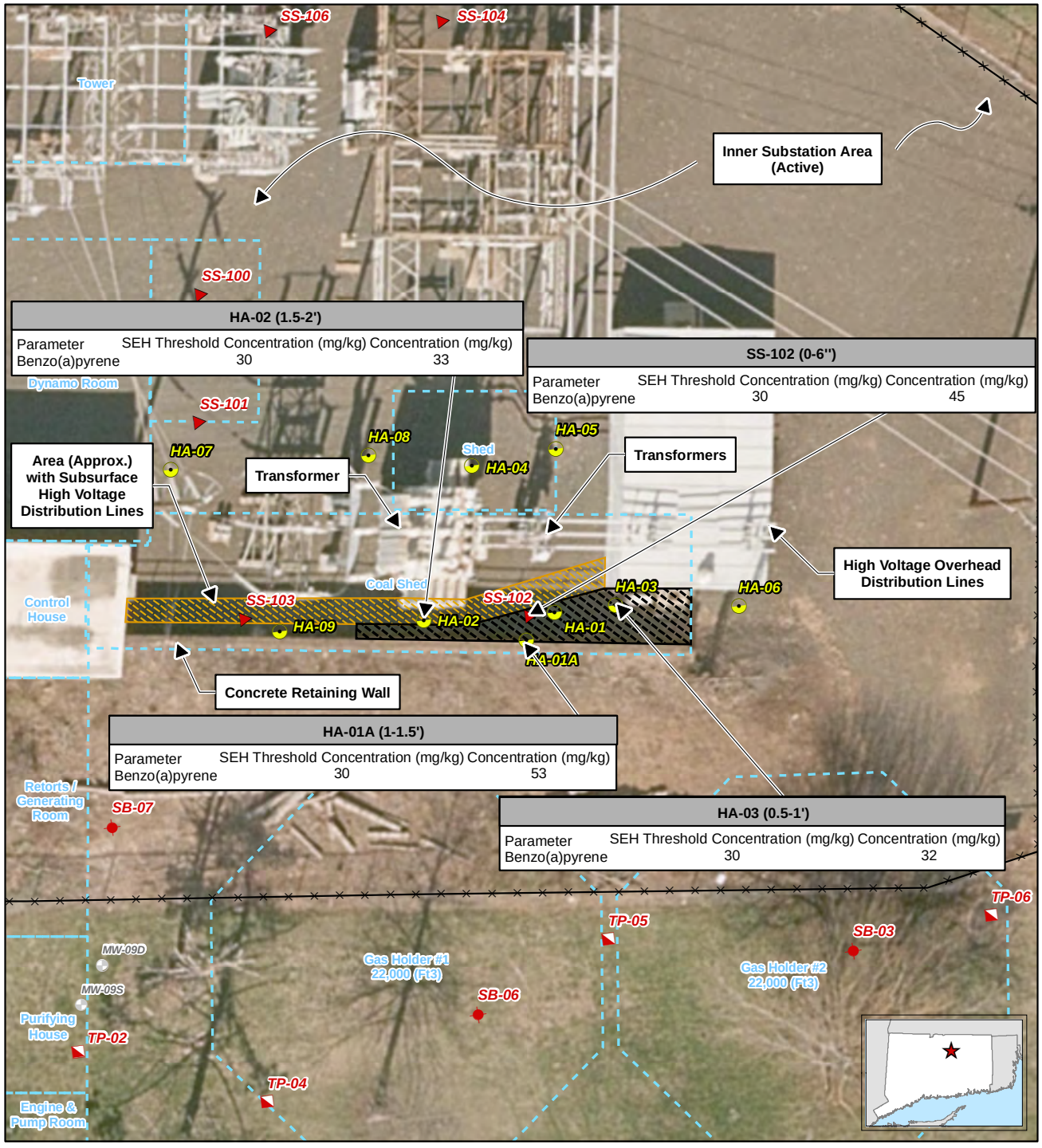

Legend

- Existing Monitoring Well
- Phase III ESA Locations
  - Soil Boring
  - Surface Soil Sample
  - Test Pit
- SEH Investigation Locations
  - Hand Auger
  - Fence Line
  - Historic Structure
- High Voltage Subsurface Electric Lines
- Site Boundary
- Concentrations of Benzo(a)pyrene Above SEH Threshold Concentration

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Note: Only concentrations above the SEH threshold shown.

Based on 2016 Statewide Leaf-Off Orthophotography. Courtesty of CTECO.

1:240

0 10 20
Feet

FIGURE **4**
SIGNIFICANT ENVIRONMENTAL HAZARD (SEH) **INVESTIGATION** SAMPLE LOCATIONS
Eversource
Rockville Former MGP Site
Rockville, Connecticut

December 2018

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N-0915

FIGURE 5 SAMPLE LOCATION SUMMARY

LEGEND

Previous Site Investigations

- Sediment Sample
- Surface Water Sample
- Monitoring Well
- Soil Boring
- Subsurface Soil
- Vapor Well
- Test Pit Location

2018 Phase III Sample Locations

- Hand Auger Location
- Sediment Sample
- Soil Boring Location
- Overburden Monitoring Well ("S", "D") and Bedrock Monitoring Well ("BR")

Significant Environmental Hazard Sample Locations 2018

- Hand Auger Location

- 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 40 80 Feet

1 inch = 40 feet

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 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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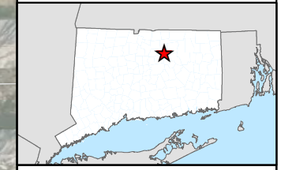
FIGURE **6**:
BEDROCK SURFACE ELEVATION CONTOUR MAP

LEGEND

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

LOCUS MAP



0 30 60 Feet

1 inch = 60 feet

NOTES

1. Bedrock Elevations are Approximate and Based Upon Dirlling Observations and Boring Logs From Previous Investigations
See Boring Logs For Depth information and Drilling Observations
2. Bedrock elevation at MW-3BR is calculated using information from MW-03D

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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, 2017, and 2018.

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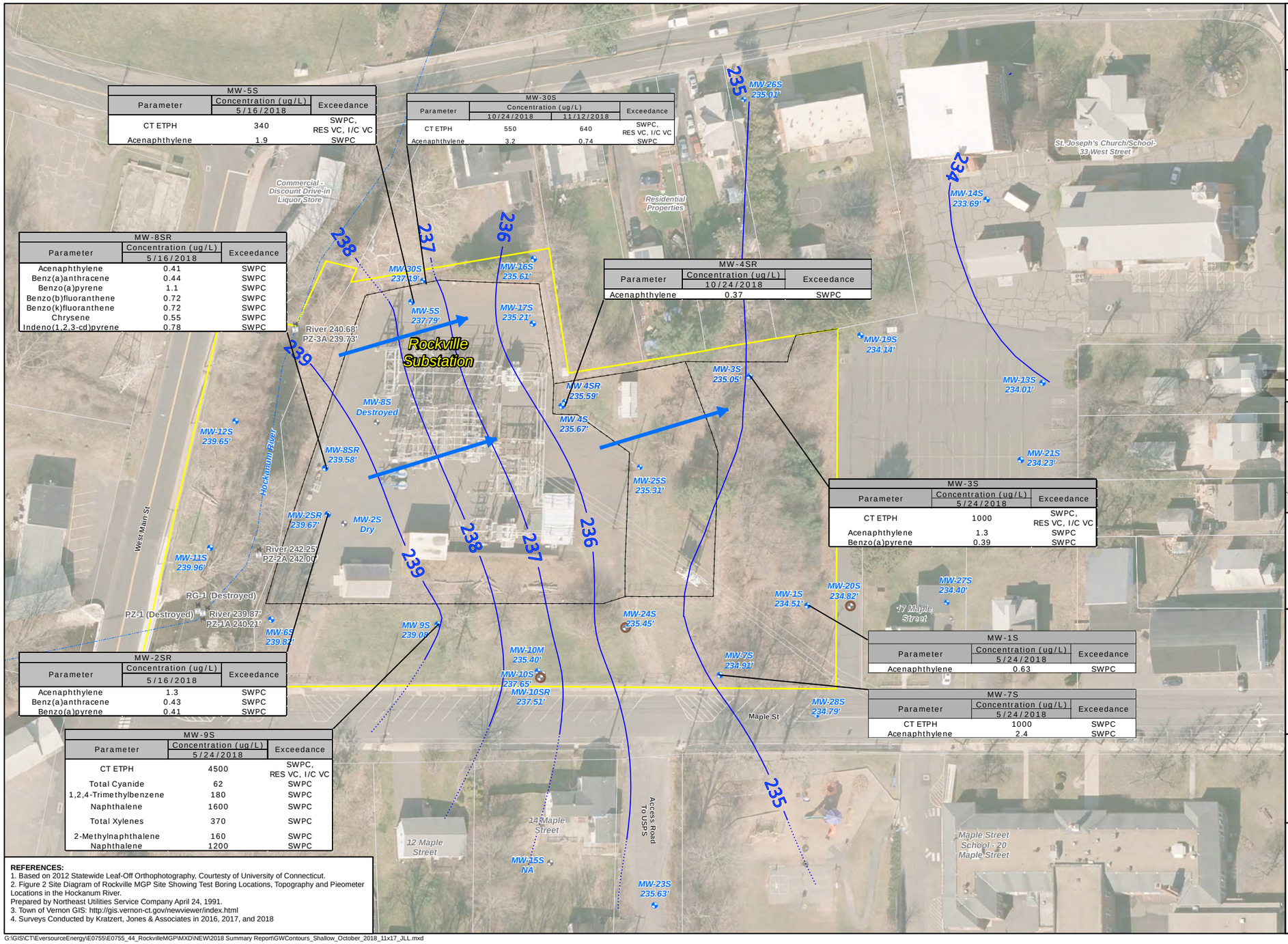

FIGURE 7:
SHALLOW WATER TABLE CONTOURS AND 2018 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW 3S 235.05' — Monitoring Well Gauged and Sampled in 2018 (w/ North American Vertical Datum Elevation 1988)
- Monitoring Well Gauged But Not Sampled in 2018
- NAPL Detected in Monitoring Well During 2018 Gauging Event
- Piezometer
- River Gauge and River Level Measurements
- Groundwater Elevation Contour (October 24, 2018)
- Inferred Groundwater Elevation Contour (October 24, 2018)
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 35 70 Feet

1 inch = 70 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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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, 2017, and 2018

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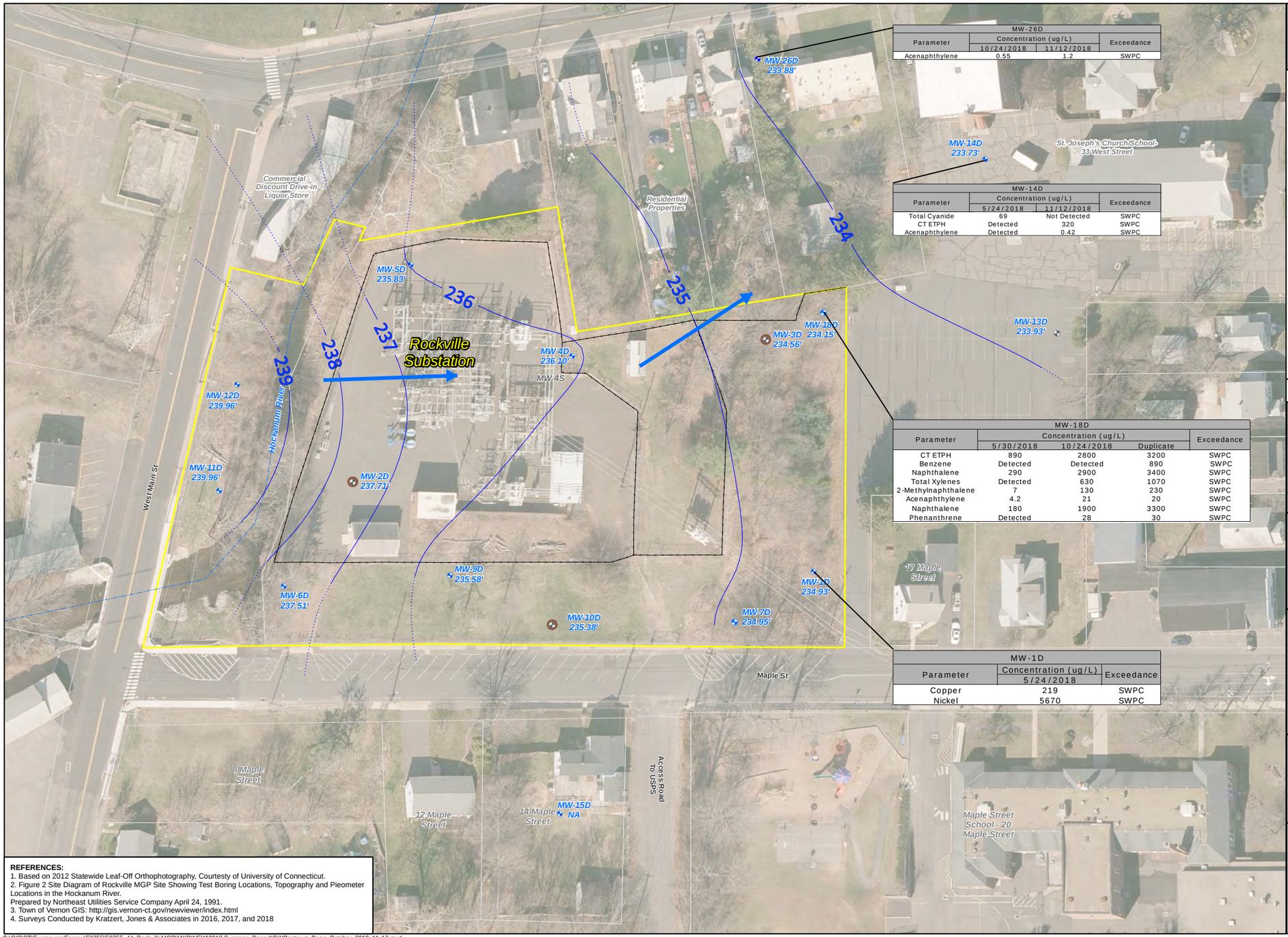

MW-26D			
Parameter	Concentration (ug/L)		Exceedance
	10/24/2018	11/12/2018	
Acenaphthylene	0.55	1.2	SWPC

MW-14D			
Parameter	Concentration (ug/L)		Exceedance
	5/24/2018	11/12/2018	
Total Cyanide	69	Not Detected	SWPC
CT ETPH	Detected	320	SWPC
Acenaphthylene	Detected	0.42	SWPC

MW-18D				
Parameter	Concentration (ug/L)			Exceedance
	5/30/2018	10/24/2018	Duplicate	
CT ETPH	890	2800	3200	SWPC
Benzene	Detected	Detected	890	SWPC
Naphthalene	290	2900	3400	SWPC
Total Xylenes	Detected	630	1070	SWPC
2-Methylnaphthalene	7	130	230	SWPC
Acenaphthylene	4.2	21	20	SWPC
Naphthalene	180	1900	3300	SWPC
Phenanthrene	Detected	28	30	SWPC

MW-1D		
Parameter	Concentration (ug/L)	Exceedance
	5/24/2018	
Copper	219	SWPC
Nickel	5670	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, 2017, and 2018

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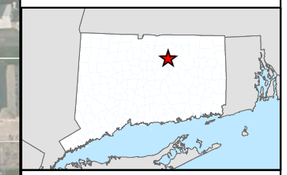
FIGURE 8: DEEP AQUIFER CONTOURS AND 2018 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW-14D 233.73' — Monitoring Well Gauged and Sampled in 2018 (w/ North American Vertical Datum Elevation 1988)
- Monitoring Well Gauged But Not Sampled in 2018
- NAPL Detected in Monitoring Well During 2018 Gauging Event
- Groundwater Elevation Contour (October 24, 2018)
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel

LOCUS MAP



0 35 70 Feet

1 inch = 70 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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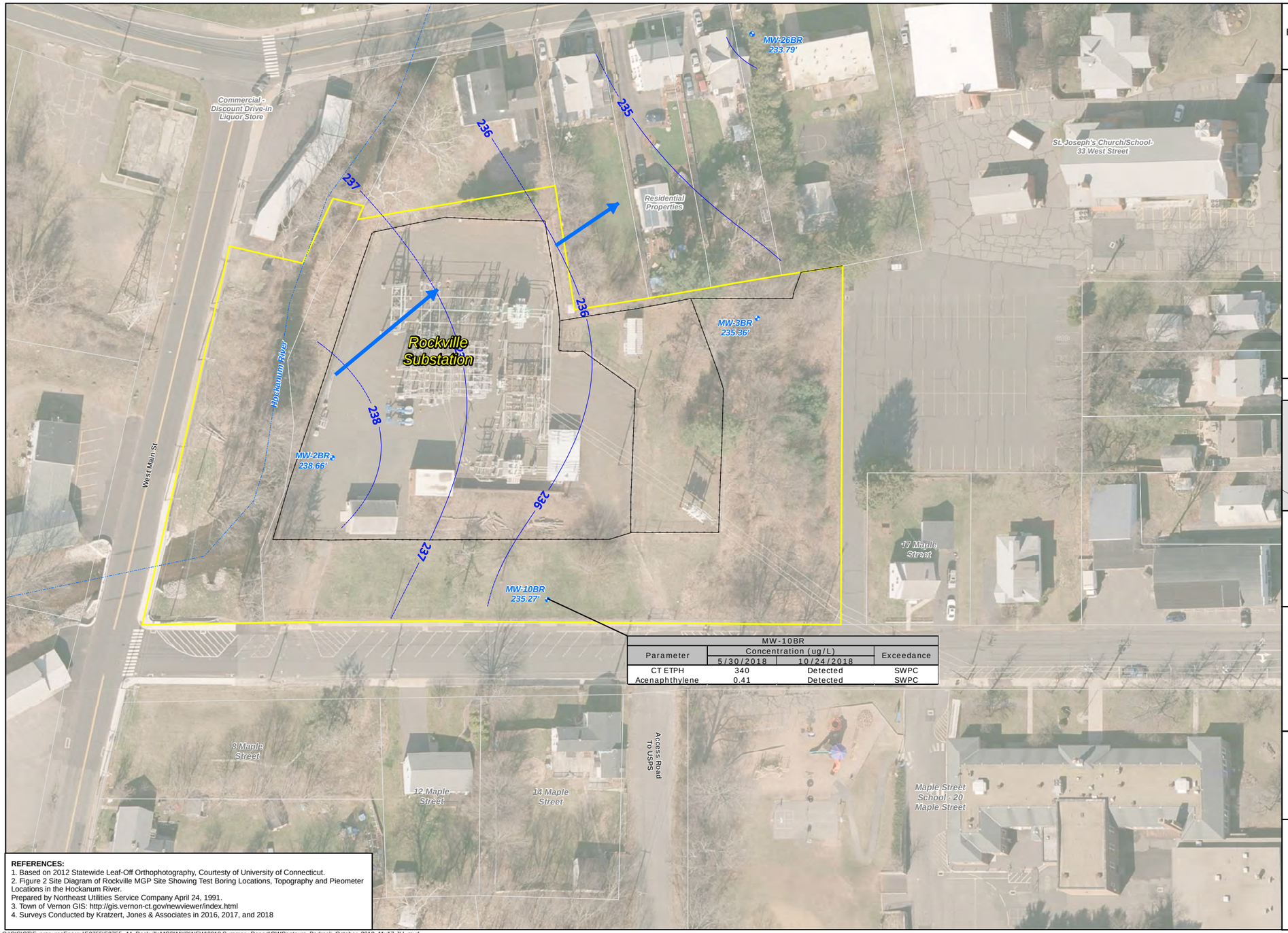

Parameter	MW-10BR Concentration (ug/L) 5/30/2018	10/24/2018	Exceedance
CT ETPH	340	Detected	SWPC
Acenaphthylene	0.41	Detected	SWPC

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, 2017, and 2018

FIGURE **9**:
BEDROCK AQUIFER CONTOURS AND 2018 ANALYTICAL EXCEEDANCE SUMMARY

LEGEND

- MW-10BR 235.27' — Monitoring Well (w/ North American Vertical Datum Elevation 1988)
- Groundwater Contour Measuered on October 24, 2018
- Inferred Groundwater Flow Direction
- Stream
- Fence Line
- Site Boundary
- Approximate Parcel Boundary

LOCUS MAP



0 35 70 Feet

1 inch = 70 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

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February 1996 Well Completion Reports for a 6" Recovey Well and 2" Montoring Wells

March 1971 Well Permit and Well Completion Report Not in Service Property Connected to Public Water System

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 **10**
WATER WELL RECEPTOR SURVEY SUMMARY

Vernon & Ellington,
Connecticut

December 2018

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N-0915

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APPENDIX B

Table 1
Monitoring Well Construction, Groundwater Gauging and Hockanum River Gauging Information Summary
Eversource Rockville Former MGP Site
13 Maple Street
Vernon, CT

Well ID	Location	Monitoring Well Construction		5/22/2018			10/24/2018			Notes
		Top of Well Casing or Measuring Point Elevation (ft. NAVD 88)	Ground Elevation (ft. MSL)	Depth to water (ft.)	Groundwater and River Elevation (ft. NAVD88)	Product Thickness (ft.)	Depth to water (ft.)	Groundwater and River Elevation (ft. NAVD88)	Product Thickness (ft.)	
Monitoring Well Locations										
MW-1S	Overgrown Area- Outer Substation	259.37	261.15	24.63	234.74	-	24.86	234.51		
MW-1D		259.59	261.24	24.45	235.14	-	24.66	234.93		
MW-2S	Inner Substation	249.01	249.01	-	-	-	-	-		Obstruction found in well.
MW-2SR		247.10	247.48	7.10	240.00	-	7.43	239.67		Staining and globules of tar observed in development water
MW-2D		247.62	249.01	9.78	237.84	0.40	9.91	237.71		0.4' of product observed in bottom of well.
MW-2BR		247.24	247.44	8.49	238.75	-	8.58	238.66		
MW-3S	Wooded Area- Outer Substation	250.12	250.54	14.84	235.28	-	15.07	235.05		
MW-3D		251.58	250.68	16.86	234.72	0.63	17.02	234.56		Globules of tar observed in development water
MW-3BR		252.73	249.14	16.34	236.39	-	17.37	235.36		
MW-4S	Grassed Area- Outer Substation	249.25	248.81	13.36	235.89	-	13.58	235.67		
MW-4SR		249.11	248.81	-	-	-	13.52	235.59		
MW-4D		249.40	248.75	13.24	236.16	-	13.30	236.10		
MW-5S	Inner Substation	244.74	246.37	6.71	238.03	-	6.95	237.79		Orange sediment like precipitate noticed at water level
MW-5D		244.56	246.32	8.62	235.94	-	8.73	235.83		
MW-6S	Grassed Area- Outer Substation	250.31	248.76	10.10	240.21	-	10.49	239.82		
MW-6D		249.69	249.00	12.02	237.67	-	12.18	237.51		
MW-7S		262.13	263.81	27.03	235.10	-	27.22	234.91		
MW-7D		265.01	261.76	29.81	235.20	-	30.06	234.95		
MW-8S		248.43	248.56	-	-	-	-	-		Unable to be located, likely destroyed.
MW-8SR		246.29	246.69	6.37	239.92	-	6.71	239.58		
MW-9S		254.17	255.75	14.80	239.37	-	15.09	239.08		
MW-9D		253.95	255.63	18.19	235.76	-	18.37	235.58		
MW-10S		257.82	259.42	20.33	237.49	-	20.17	237.65		
MW-10SR		257.68	258.04	20.50	237.18	0.30	20.17	237.51	0.10	Staining and globules of tar observed in development water
MW-10M		257.35	259.08	21.75	235.60	-	21.95	235.40		
MW-10D		257.33	258.98	22.50	234.83	0.24	21.95	235.38	0.05	Heavy staining observed on the tape of the meter. Globules of tar observed water pumped during DNAPL Assessment
MW-10BR		257.33	257.57	21.93	235.40	-	22.06	235.27		
MW-11S	West Main Street Parcel	252.17	251.20	11.76	240.41	-	12.21	239.96		
MW-11D		251.91	251.10	11.50	240.41	-	11.95	239.96		
MW-12S		251.54	250.80	11.52	240.02	-	11.89	239.65		
MW-12D		251.69	250.90	11.35	240.34	-	11.73	239.96		
MW-13S	St. Joseph Church Parking Lot	252.13	252.53	17.90	234.23	-	18.12	234.01		
MW-13D		251.91	252.45	-	-	-	17.98	233.93		Located Summer 2018. Redeveloped and sampled during Fall 2018
MW-14S		245.11	245.40	11.21	233.90	-	11.42	233.69		
MW-14D		244.90	245.36	10.96	233.94	-	11.17	233.73		
MW-16S	Outer Substation Area	246.82	244.86	11.15	235.67	-	11.21	235.61		
MW-17S		245.72	246.01	10.43	235.29	-	10.51	235.21		
MW-18D		254.03	251.16	19.67	234.36	-	19.88	234.15		
MW-19S	St. Joseph Church Parking Lot	251.88	252.16	17.53	234.35	-	17.74	234.14		
MW-20S		260.82	260.52	25.80	235.02	0.00	26.00	234.82	0.01	Staining and globules of tar observed in development water
MW-21S		255.11	255.30	20.70	234.41	-	20.88	234.23		
MW-23S	USPS ROW	268.98	269.20	33.17	235.81	-	33.35	235.63		
MW-24S	Grassed Area- Outer Substation	257.07	257.59	-	-	-	21.62	235.45		Staining and globules of tar observed in development water
MW-25S		250.82	250.99	-	-	-	15.51	235.31		
MW-26S	Front of St. Joseph Convent	243.97	244.53	-	-	-	8.96	235.01		
MW-26D		244.28	244.45	-	-	-	10.40	233.88		
MW-26BR		244.16	244.32	-	-	-	10.37	233.79		
MW-27S	17 Maple Street	260.80	261.00	-	-	-	26.40	234.40		
MW-28S	Maple Street ROW	263.85	264.11	-	-	-	29.06	234.79		
MW-30S	Rear of Substation	244.46	244.58	-	-	-	7.27	237.19		
Hockanum River Piezometers and Gauging Locations										
RG-1 (River Gauge)	Hockanum River	245.12		-	-	-	-	-		Nov. 2017- Damaged by fallen tree.
PZ-1		244.54		-	-	-	-	-		Nov. 2017- Damaged by fallen tree.
PZ-1 River Level		244.54		-	-	-	-	-		Nov. 2017- Damaged by fallen tree.
PZ-1A		246.79		3.46	243.33	-	6.58	240.21		
PZ-1A River Level		246.79		5.40	241.39	-	6.92	239.87		
PZ-2A		244.90		3.11	241.79	-	2.90	242.00		
PZ-2A River Level		244.90		2.65	242.25	-	2.65	242.25		
PZ-3A		244.12		-	-	-	4.39	239.73		Nov. 2017- Damaged by high water. Reinstalled Summer 2018
PZ-3A River Level		244.12		-	-	-	3.44	240.68		Nov. 2017- Damaged by high water. Reinstalled Summer 2018

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
PZ-18

TABLE 2
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID	CT DEEP RSRs				SB-28	^SB-28	SB-29	SB-29	SB-30	^SB-30	SB-31	^SB-31	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37	SB-38	SB-39	DUP-102	SB-40A	SB-41	SB-42	SB-43	SB-43	SB-44	SB-44	SB-45	SB-46	SB-47	SB-47	SB-48	SB-49
Sample Depth					1 - 3 ft	22 - 24 ft	3 - 5 ft	14 - 16 ft	2 - 4 ft	15 - 17 ft	1 - 3 ft	15 - 17 ft	2 - 4 ft	5 - 7 ft	2 - 4 ft	5 - 7 ft	2 - 4 ft	2 - 4 ft	5 - 7 ft	3 - 5 ft	3 - 5 ft	5.5 - 7.5 ft	1 - 3 ft	2 - 4 ft	0.5 - 2 ft	5 - 7 ft	1 - 3 ft	10 - 12 ft	0 - 2 ft	5 - 7 ft	2 - 4 ft	11 - 13 ft	2 - 4 ft	3 - 5 ft
Laboratory ID					CA98809	CA98810	CA99810	CA99811	CA98807	CA98808	CA98805	CA98806	CA96215	CA91708	CA91709	CA94067	CA91711	CA91712	CA94069	CB20631	CB20633	CB20630	CA91715	CA91714	CA98174	CA98175	CA91719	CA95004	CA91720	CA94064	CA91717	CA94065	CA96216	CA98183
Sample Date					7/26/2018	7/26/2018	7/27/2018	7/27/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/23/2018	7/17/2018	7/16/2018	7/19/2018	7/16/2018	7/16/2018	7/19/2018	8/28/2018	8/28/2018	8/28/2018	7/16/2018	7/16/2018	7/24/2018	7/24/2018	7/17/2018	7/20/2018	7/17/2018	7/19/2018	7/17/2018	7/19/2018	7/23/2018	7/25/2018
Apparent Depth to Water					24'	24'	18'	18'	17'	17'	11'	11'	7'	7'	7'	7'	7'	5'	8'	5'	5'	7.5'	10'	9'	7'	7'	12'	12'	15'	7'	13'	13'	7'	9'
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SB-39	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																														
CT ETPH (mg/Kg)	500	2,500	2,500	NA	320	ND <260	**520**	470	**760**	**710**	-	**6600**	**2900**	**1400**	**4800**	**8600**	280	ND <59	ND <52	**1200**	**1100**	230	ND <61	140	ND <320	**630**	140	ND <54	ND <62	**1600**	ND <54	**6400**	ND <55	ND <53
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																																		
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	2.5	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.38
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	0.8	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.38
2-Isopropyltoluene	NE	NE	NE	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	0.18	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.38
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	ND <0.4	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.38
Benzene	21	200	0.2	NA	**3**	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.2	ND <0.0057	**0.22**	**0.35**	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.2	ND <0.01	ND <0.011
Butylbenzene, n-	500*	1000*	70*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	0.83	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	0.22	ND <0.01	ND <0.38
Butylbenzene, sec-	500*	1000*	70*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	0.25	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.38
Ethylbenzene	500	1,000	10.1	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	1.3	ND <0.0057	0.0036	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	0.19	ND <0.01	ND <0.011
Isopropylbenzene (cumene)	500*	1000*	5*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	1.2	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	0.19	ND <0.01	ND <0.38
m,p-Xylene[1]	NE	NE	NE	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.4	ND <0.0057	0.019	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
Methylene chloride	82	760	1	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.4	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
Naphthalene	1,000	2,500	56	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	0.38	ND <0.0053	-	4.2	ND <0.0057	0.64	2.4	0.35	0.2	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	0.49	-	0.84	ND <0.01	ND <0.38
n-Propylbenzene	500*	1000*	10*	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.47	ND <0.0053	-	1.1	ND <0.0057	ND <0.36	ND <0.0045	ND <0.0094	ND <0.42	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.45	ND <0.0044	-	0.17	ND <0.01	ND <0.38
o-Xylene[1]	NE	NE	NE	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	0.7	ND <0.0057	0.022	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
Styrene	500	1,000	20	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.4	ND <0.0057	0.0053	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
Tetrachloroethene	12	110	1	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.4	ND <0.0057	ND <0.0055	0.65	0.32	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	0.47	0.0073	-	0.55	ND <0.0064	ND <0.0065	0.17	-	ND <0.33	ND <0.01	ND <0.011
Toluene	500	1,000	67	NA	0.28	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	ND <0.4	ND <0.0057	0.4	0.37	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
Total Xylenes	500	1,000	19.5	NA	ND <0.0059	ND <0.0057	-	ND <0.0079	ND <0.0074	ND <0.0053	-	0.7	ND <0.0057	0.041	ND <0.0045	ND <0.0094	ND <0.0057	ND <0.0068	ND <0.0054	ND <0.017	ND <0.019	ND <0.0078	ND <0.0073	ND <0.0062	ND <0.0074	-	ND <0.0061	ND <0.0064	ND <0.0065	ND <0.0044	-	ND <0.33	ND <0.01	ND <0.011
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-1254	NE	NE	NA	NA	ND <0.36	-	-	-	-	-	-	-	-	ND <0.35	ND <0.38	ND <0.38	ND <0.37	-	-	-	-	-	ND <0.42	0.87	-	-	ND <0.37	ND <0.36	ND <0.41	ND <0.37	ND <0.36	-	-	-
Aroclor-1268	NE	NE	NA	NA	ND <0.36	-	-	-	-	-	-	-	-	ND <0.35	ND <0.38	ND <0.38	ND <0.37	-	-	-	-	-	ND <0.42	ND <0.42	-	-	ND <0.37	ND <0.36	ND <0.41	ND <0.37	ND <0.36	-	-	-
Total PCBs	1	10	NA	NA	ND <0.36	-	-	-	-	-	-	-	-	ND <0.35	ND <0.38	ND <0.38	ND <0.37	-	-	-	-	-	ND <0.42	0.87	-	-	ND <0.37	ND <0.36	ND <0.41	ND <0.37	ND <0.36	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	3.17	6.55	-	ND <0.54	27.3	ND <0.54	26.5	ND <0.52	25.3	0.55	1.39	3.23	10.8	ND <0.60	3.55	1.52	2.33	ND <0.56	ND <0.63	0.89	ND <0.65	ND <0.55	0.82	0.89	ND <0.56	2.38	ND <0.55	-	1.98	2.72
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides (mg/Kg)																																		
Dieldrin	0.04	0.36	0.01	NA	-	-	ND <0.0035	-	-	-	0.0049	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 soils at depths greater than 15'
~ - PMC does not apply to samples soils below the seasonal high watertable
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					SB-28	^SB-28	SB-29	SB-29	SB-30	^SB-30	SB-31	^SB-31	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37	SB-38	SB-39	DUP-102	SB-40A	SB-41	SB-42	SB-43	SB-43	SB-44	SB-44	SB-45	SB-46	SB-47	SB-47	SB-48	SB-49
Sample Depth					1 - 3 ft	22 - 24 ft	3 - 5 ft	14 - 16 ft	2 - 4 ft	15 - 17 ft	1 - 3 ft	15 - 17 ft	2 - 4 ft	5 - 7 ft	2 - 4 ft	5 - 7 ft	2 - 4 ft	2 - 4 ft	5 - 7 ft	3 - 5 ft	3 - 5 ft	5.5 - 7.5 ft	1 - 3 ft	2 - 4 ft	0.5 - 2 ft	5 - 7 ft	1 - 3 ft	10 - 12 ft	0 - 2 ft	5 - 7 ft	2 - 4 ft	11 - 13 ft	2 - 4 ft	3 - 5 ft
Laboratory ID					CA98809	CA98810	CA99810	CA99811	CA98807	CA98808	CA98805	CA98806	CA96215	CA91708	CA91709	CA94067	CA91711	CA91712	CA94069	CB20631	CB20633	CB20630	CA91715	CA91714	CA98174	CA98175	CA91719	CA95004	CA91720	CA94064	CA91717	CA94065	CA96216	CA98183
Sample Date					7/26/2018	7/26/2018	7/27/2018	7/27/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/23/2018	7/17/2018	7/16/2018	7/19/2018	7/16/2018	7/16/2018	7/19/2018	8/28/2018	8/28/2018	8/28/2018	7/16/2018	7/16/2018	7/24/2018	7/24/2018	7/17/2018	7/20/2018	7/17/2018	7/19/2018	7/17/2018	7/19/2018	7/23/2018	7/25/2018
Apparent Depth to Water					24'	24'	18'	18'	17'	17'	11'	11'	7'	7'	7'	7'	7'	5'	8'	5'	5'	7.5'	10'	9'	7'	7'	12'	12'	15'	7'	13'	13'	7'	9'
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SB-39	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																														
Semi-VOCs (mg/Kg)																																		
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.25	0.49	0.73	1.5	0.3	ND <0.25	ND <2.7	ND <0.26	ND <1.3	1.9	4.7	ND <5.6	0.57	ND <0.27	ND <0.24	ND <1.3	3.6	0.45	ND <0.29	ND <0.26	ND <0.3	0.43	ND <0.26	ND <0.25	ND <0.29	***6.8***	ND <0.26	ND <1.3	ND <0.26	ND <0.25
Acenaphthene	1000*	2500*	84*	NA	ND <0.25	ND <0.24	0.71	ND <0.25	ND <0.26	ND <0.25	ND <2.7	29	ND <1.3	ND <1.2	ND <2.7	ND <13	ND <0.26	ND <0.27	ND <0.24	ND <1.3	ND <1.4	ND <0.26	ND <0.29	ND <0.26	ND <0.3	0.28	ND <0.26	ND <0.25	ND <0.29	0.88	ND <0.26	14	ND <0.26	ND <0.25
Acenaphthylene	1,000	2,500	84	NA	0.77	2.2	5.5	6.2	2	0.26	8.3	2.7	12	2.8	28	56	5.3	ND <0.27	0.3	6.5	26	1.6	ND <0.29	1.1	0.76	3.1	0.65	ND <0.25	ND <0.29	7	0.37	5.4	0.26	ND <0.25
Anthracene	1,000	2,500	400	NA	0.99	0.37	2.9	ND <0.25	0.91	ND <0.25	ND <2.7	12	2	1.4	14	22	0.92	ND <0.27	ND <0.24	1.9	7.3	ND <0.26	ND <0.29	0.37	0.54	10	ND <0.26	ND <0.25	ND <0.29	6.2	0.4	18	ND <0.26	ND <0.25
Benz(a)anthracene	1	7.8	1	NA	***1.7***	ND <0.24	***5***	0.44	***2.1***	ND <0.25	***2***	***6.8***	***14***	***2.7***	***28***	***150***	0.73	ND <0.27	0.79	***3.5***	***22***	ND <0.26	ND <0.29	0.42	***2.9***	***35***	0.72	ND <0.25	ND <0.29	***16***	0.73	***14***	0.43	ND <0.25
Benzo(a)pyrene	1	1	1	NA	***1.3***	0.83	***6***	***5.9***	***1.9***	ND <0.25	***2.9***	***5.5***	***13***	***4.7***	***16***	***150***	***2***	ND <0.27	0.55	***20***	***44***	***1.1***	ND <0.29	0.62	***3***	***24***	0.93	ND <0.25	ND <0.29	***13***	0.86	***12***	0.64	ND <0.25
Benzo(b)fluoranthene	1	7.8	1	NA	***1.6***	0.38	***4.8***	***2.8***	***3.1***	ND <0.25	***3***	***2.3***	***20***	***3.8***	***23***	***120***	***1.4***	ND <0.27	0.85	***10***	***28***	0.38	ND <0.29	0.57	***2.6***	***23***	0.87	ND <0.25	ND <0.29	***9***	0.71	***7.3***	0.72	ND <0.25
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	***1.6***	0.94	***5.4***	***4***	***2.3***	0.25	***9.4***	***2***	***21***	***10***	***26***	***140***	***2.9***	0.56	0.83	***14***	***41***	0.87	ND <0.29	***1.1***	***1.4***	***12***	0.91	0.31	ND <0.29	***7.1***	0.84	***6.3***	0.77	ND <0.25
Benzo(k)fluoranthene	8.4	78	1	NA	***1.5***	0.28	***4.1***	***2.4***	***2.9***	ND <0.25	***3.2***	***2.9***	***17***	***2.2***	***19***	***130***	***1.2***	ND <0.27	0.8	***11***	***34***	0.29	ND <0.29	0.53	***2.5***	***18***	0.89	ND <0.25	ND <0.29	***12***	0.57	***9.6***	0.67	ND <0.25
Carbazole	31*	290*	1*	NA	ND <0.36	-	ND <0.68	-	ND <0.38	-	ND <1	-	-	-	-	-	-	-	-	-	-	ND <0.42	ND <0.37	ND <0.43	-	ND <0.37	ND <0.36	ND <0.41	0.52	ND <0.37	-	-	-	-
Chrysene	84*	780*	1*	NA	***2.4***	ND <0.24	***5.4***	***2.6***	***3.3***	ND <0.25	***3***	***5.9***	***19***	***3.7***	***37***	***160***	1	ND <0.27	***1.1***	***5.6***	***33***	0.31	ND <0.29	0.71	***2.9***	***33***	0.81	ND <0.25	ND <0.29	***17***	0.73	***15***	0.62	ND <0.25
Dibenz(a,h)anthracene	1*	1*	1*	NA	0.36	ND <0.24	***1.3***	***1.1***	0.66	ND <0.25	***1.3***	0.43	***4.1***	***1.7***	***4.4***	***21***	0.42	ND <0.27	ND <0.24	***2.4***	***6.2***	ND <0.26	ND <0.29	ND <0.26	0.5	***4.9***	ND <0.26	ND <0.25	ND <0.29	***1.9***	ND <0.26	***1.4***	ND <0.26	ND <0.25
Dibenzofuran	68*	1000*	1.4*	NA	ND <0.25	-	0.86	-	ND <0.26	-	ND <1	-	-	-	-	-	-	-	-	-	-	-	ND <0.29	ND <0.26	ND <0.3	-	ND <0.26	ND <0.25	ND <0.29	1.3	ND <0.26	-	-	-
Di-N-Octyl phthalate	1000	2500	20	NA	ND <0.25	-	ND <0.48	-	ND <0.26	-	ND <2.7	-	-	-	-	-	-	-	-	-	-	-	ND <0.29	ND <0.26	ND <0.3	-	0.72	ND <0.25	ND <0.29	ND <0.26	ND <0.26	-	-	-
Fluoranthene	1,000	2,500	56	NA	3.5	0.37	6.5	0.26	3.2	ND <0.25	ND <2.7	14	8.6	3.3	50	***170***	0.82	ND <0.27	0.81	2.5	15	ND <0.26	ND <0.29	0.5	3.7	33	0.8	ND <0.25	ND <0.29	22	1.7	24	0.52	ND <0.25
Fluorene	1,000	2,500	56	NA	0.43	ND <0.24	0.97	0.54	0.36	ND <0.25	ND <2.7	17	ND <1.3	ND <1.2	5.8	ND <13	0.73	ND <0.27	ND <0.24	ND <1.3	2.4	ND <0.26	ND <0.29	ND <0.26	ND <0.3	1.9	ND <0.26	ND <0.25	ND <0.29	5.9	ND <0.26	16	ND <0.26	ND <0.25
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	***1.4***	0.91	***5.4***	***4***	***2.4***	ND <0.25	***6.8***	***1.9***	***21***	***11***	***22***	***120***	***2.5***	0.53	0.79	***15***	***38***	0.93	ND <0.29	0.87	***1.7***	***16***	0.89	ND <0.25	ND <0.29	***6.9***	0.81	***6.4***	0.84	ND <0.25
Naphthalene	1,000	2,500	56	NA	ND <0.25	0.62	0.87	1.4	0.4	ND <0.25	ND <2.7	1.7	1.5	1.3	6.9	ND <13	0.77	ND <0.27	ND <0.24	ND <1.3	5.4	0.51	ND <0.29	ND <0.26	ND <0.3	0.87	ND <0.26	ND <0.25	ND <0.29	6.7	ND <0.26	2.4	ND <0.26	ND <0.25
Pentachlorophenol	5.1	48	1	NA	ND<0.36	-	ND<0.68	-	ND<0.38	-	ND<1.4	-	-	-	-	-	-	-	-	-	-	ND<0.42	ND<0.37	-	-	ND<0.37	ND<0.36	ND<0.41	ND<0.37	ND<0.37	-	-	-	-
Phenanthrene	1,000	2,500	40	NA	4.6	0.37	6.4	1.6	2.4	ND <0.25	ND <2.7	35	2	4	***45***	38	0.43	ND <0.27	0.31	ND <1.3	2.9	ND <0.26	ND <0.29	ND <0.26	1.4	19	0.27	ND <0.25	ND <0.29	25	1.3	24	ND <0.26	ND <0.25
Pyrene	1,000	2,500	40	NA	5.2	0.79	7.7	0.44	4	ND <0.25	4	20	19	7	***110***	***450***	1.6	ND <0.27	1.4	6.7	37	ND <0.26	ND <0.29	0.9	4	30	0.99	ND <0.25	ND <0.29	28	1.6	32	0.76	0.33
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 <3.9	-	-	-	ND <3.5	-	ND <4.0	-	ND <3.6	ND <3.4	ND <3.9	ND <3.8	ND <4.0	ND <3.9	ND <3.3	ND <3.6	ND <3.6	ND <3.4	ND <4.0	ND <3.6	ND <4.4	ND <3.5	ND <3.6	ND <3.3	ND <4.1	ND <3.7	ND <3.8	-	ND <4.0	ND <3.8
Arsenic	10	10	NA	NA	***14.5***	-	-	-	8.45	-	3.62	-	***10.2***	***22.4***	***15.4***	***91.6***	***14.8***	4.48	3.86	7.8	4.62	1.84	6.81	***28.5***	***48.5***	6.35	6.66	2.54	2.23	***18.5***	1.93	-	***17.5***	***147***
Barium	4,700	140,000	NA	NA	99.6	-	-	-	69.6	-	46.2	-	40.9	66.6	69.2	79.7	71.6	63.5	63.6	55.3	72.5	92.7	75.1	92	59.1	65	81.2	41.9	76.3	59.3	49.4	-	49.7	80.3
Beryllium	2	2	NA	NA	0.78	-	-	-	0.39	-	0.45	-	ND <0.29	0.33	ND <0.31	ND <0.31	1.38	0.58	0.45	0.44	0.51	0.52	0.57	0.35	0.55	0.45	0.43	0.4	0.54	0.37	0.35	-	0.61	0.86
Cadmium	34	1,000	NA	NA	ND <0.39	-	-	-	ND <0.35	-	ND <0.40	-	0.47	0.44	0.86	0.85	1.41	ND <0.39	0.52	0.37	1.1	0.4	0.47	0.38	0.52	ND <0.35	0.42	0.41	ND <0.41	0.72	ND <0.38	-	ND <0.40	0.51
Chromium			NA	NA	13.3	-	-	-	27	-	19.5	-	7.68	13.8	16.4	9.39	19	19.7	17.7	20.3	16.4	11.8	17.1	15.5	14.4	15.2	12.1	17.2	15.6	13.7	12	-	10.6	7.3
Copper	2,500	76,000	NA	NA	74.5	-	-	-	37.8	-	28.6	-	33.9	34.2	32	24.3	40.7	15.3	28.5	40.7	13.5	13.4	18.1	21.5	34.9	21	29	15.5	7.74	24	9.72	-	50.1	42.6
Lead	400	1,000	NA	NA	41.4	-	-	-	69	-	134	-	61.3	55.5	79.4	55.2	82.8	20.2	49.1	68.8	13.2	1.3	30.1	44.6	64.7	49	31.8	8.29	5.52	45.5	13.4	-	48.1	10.4
Mercury	20	610	NA	NA	ND <0.13	-	-	-	0.21	-	1.09	-	0.14	0.04	0.36	0.33	0.44	0.05	0.18	0.22	0.06	ND <0.03	0.06	ND <0.03	0.16	0.1	0.54	ND <0.03	ND <0.03	0.21	ND <0.03	-	0.17	ND <0.03
Nickel	1,400	7,500	NA	NA	10.7	-	-	-	12.6	-	14	-	11.8	11	10.9	6.22	12.6	10.8	11.8	9.4	9.9	8.8	9.33	8.87	11.5	11.1	9.28	10.4	8.89	11.4	7.27	-	13.9	14.1
Selenium	340	10,000			ND <5.2	-	ND <5.2	-	ND <5.2	-	ND <5.2	-	ND <1.4	ND <2.1	ND <3.6	ND <15	ND <1.6	ND <1.5	ND <1.3	ND <1.5	ND <1.5	ND <1.4	ND <1.6	ND <1.4	ND <1.8	ND <1.4	ND <1.4	ND <1.3	ND <1.6	ND <1.5	ND <1.5	-	ND <1.6	15.5
Silver	340	10,000	NA	NA	ND <3.0	-	ND <3.0	-	ND <3.0	-	ND <3.0	-	ND <0.36	ND <1.8	ND <1.8	ND <0.38	ND <0.40	ND <0.39	ND <0.33	ND <0.36	ND <0.36	ND <0.34	ND <1.8	ND <1.8	ND <2.5	ND <2.5	ND <1.8	ND <0.33	ND <1.8	ND <3.7	ND <1.8	-	ND <0.40	ND <2.5
Vanadium	470	14,000	NA	NA	18.8	-	-	-	33.3	-	28.2	-	19	31.5	20.6	36	36.5	35.8	38.5	26.4	52.2	49.3	27.9	24.7	27.9	25.5	30.8	33.2	29.1	22.7	23.1	-	28.8	19.9
Zinc	20,000	610,000	NA	NA	12.2	-	-	-	30	-	82.1	-	13	38.1	48.2	58.2	140	38.8	57	67.3	132	54.9	80.6	70.6	176	75.9	74.4	24.7	28.9	125	20.8	-	26.3	27.3
SPLP Metals (mg/L)																																		
Antimony	NA	NA	0.06	NA	-	-	-	-	-	-	ND <0.005	-	ND <0.005	ND <0.02	ND <0.02	ND <0.005	ND <0.005	ND <0.005	ND <0.005	ND <0.005	ND <0.005	ND <0.005	ND <0.02	ND <0.02	ND <0.005	-	ND <0.02	ND <0.005	ND <0.02	ND <0.005	ND <0.02	-	-	-
Arsenic	NA	NA	0.5	NA	-	-	-	-	-	-	ND <0.004	-	ND <0.004	ND <0.02	ND <0.02	0.022	0.005	ND <0.004	0.007	ND <0.004	ND <0.004	ND <0.004	ND <0.02	ND <0.02	0.011	-	ND <0.02	ND <0.004	ND <0.02	0.009	ND <0.02	-	-	-
Barium	NA	NA	10	NA	-	-	-	-	-	-	0.014	-	0.035	ND <0.010	0.016	ND <0.010	0.019	0.013	ND <0.010	ND <0.010	0.017	0.003	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	0.011	-	-	-
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	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	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	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	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	ND <0.010	0.001	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	-	-	-	-	-	-	0.012	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	0.011	0.002	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Lead	NA	NA	0.15	NA	-	-	-	-	-	-	0.026	-	ND <0.010	ND <0.010	0.013	ND <0.010	0.015	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	0.011	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Mercury	NA	NA	0.02	NA	-	-	-	-	-	-	0.0006	-	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	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	0.016	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	0.002	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Selenium	NA	NA	0.5	NA	-	-	-	-	-	-	ND <0.020	-	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	-	ND <0.020	ND <0.020	ND <0.020	ND <0.020	ND <0.020	-	-	-
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	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	ND <0.010	-	-	-
Vanadium	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	ND <0.010	0.002	ND <0.010	ND <0.010	ND <0.010	-	ND <0.010	ND <0.010	ND <0.010	ND <0.010	ND <0.010	-	-	-
Zinc	NA	NA	50	NA	-	-	-	-	-	-	0.031	-	ND <0.010	0.015	0.015	0.018	0.086	ND <0.010	ND <0.010	ND <0.010	0.014	0.003	ND <0.010	0.027	0.018	-	ND <0.010	ND <0.010	ND <0.010	0.017	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 samples collected below the seasonal high water table
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					SB-50	SB-51	SB-51	^SB-52	SB-53	SB-54	SB-55	SB-55	SB-56	SB-57	SB-57	SB-58	SB-59	~^SB-59	~^SB-60	~^SB-61	~^SB-62	~^DUP-101	~^SB-63	~^SB-64	SB-65	~^SB-66	~^SB-66	~^SB-67	HA-01A	HA-01A	HA-01A	HA-02	HA-02	HA-03
Sample Depth					2 - 4 ft	2 - 4 ft	10 - 11 ft	16 - 18 ft	3 - 5 ft	2 - 4 ft	2 - 4 ft	8 - 9 ft	0.5 - 2 ft	2 - 4 ft	~8 - 10 ft	0.5 - 2 ft	2 - 3 ft	22 - 24 ft	40 - 42 ft	23 - 25 ft	31 - 33 ft	31 - 33 ft	35 - 37 ft	38.5 - 40 ft	1 - 3 ft	17 - 19 ft	27 - 29 ft	23 - 25 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0.5 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft
Laboratory ID					CA96214	CA96212	CA96213	CA98185	CB20632	CA98182	CA98180	CA98181	CA98179	CA98177	CA98178	CA98176	CA99812	CA99813	CB17429	CB15819	CB15818	CB15820	CB62410	CB01075	CA91721	CB72216	CB72217	CB72218	CA35714	CA35715	CA35716	CA35717	CA35718	CA35719
Sample Date					7/23/2018	7/23/2018	7/23/2018	7/25/2018	8/28/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/27/2018	7/27/2018	8/23/2018	8/20/2018	8/20/2018	8/20/2018	10/1/2018	7/30/2018	7/17/2018	10/15/2018	10/15/2018	10/15/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018
Apparent Depth to Water					7'	11'	11'	18'	5'	10'	9'	9'	8'	8'	8'	13'	15'	15'	10'	19'	24'	24'	26.5'	30'	17'	14'	14'	20'	NE	NE	NE	NE	NE	NE
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SB-62	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																														
CT ETPH (mg/Kg)	500	2,500	2,500	NA	210	480	-	**4200**	130	140	330	ND <61	ND <260	ND <53	ND <60	ND <260	ND <52	ND <60	ND <62	**910**	ND <57	ND <57	ND <56	ND <58	**2600**	ND <55	ND <59	ND <54	-	-	-	-	-	-
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																																		
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	ND <0.012	-	ND <0.0079	3.4	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	3	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	0.0082	ND <0.0073	-	-	-	-	-	-
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	ND <0.012	-	ND <0.0079	1.6	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	0.89	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
2-Isopropyltoluene	NE	NE	NE	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	ND <0.012	-	ND <0.0079	1.8	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	0.32	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Benzene	21	200	0.2	NA	ND <0.012	-	ND <0.0079	ND <0.2	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	ND <0.0050	0.2	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	0.19	ND <0.0073	-	-	-	-	-	-
Butylbenzene, n-	500*	1000*	70*	NA	ND <0.012	-	ND <0.0079	0.83	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	0.22	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Butylbenzene, sec-	500*	1000*	70*	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Ethylbenzene	500	1,000	10.1	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	0.0069	ND <0.0046	ND <0.0050	1.9	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	0.23	ND <0.0073	-	-	-	-	-	-
Isopropylbenzene (cumene)	500*	1000*	5*	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	0.61	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
m,o-Xylene[1]	NE	NE	NE	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	0.0064	0.96	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	0.022	ND <0.0073	-	-	-	-	-	-
Methylene chloride	82	760	1	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Naphthalene	1,000	2,500	56	NA	ND <0.012	-	ND <0.0079	12	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	0.42	ND <0.0046	0.16	31	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	0.57	ND <0.0073	-	-	-	-	-	-
n-Propylbenzene	500*	1000*	10*	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.39	ND <0.46	ND <0.0046	ND <0.0050	0.35	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.36	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
o-Xylene[1]	NE	NE	NE	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	ND <0.0050	0.91	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	0.024	ND <0.0073	-	-	-	-	-	-
Styrene	500	1,000	20	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Tetrachloroethene	12	110	1	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Toluene	500	1,000	67	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	0.0048	ND <0.0046	ND <0.0050	ND <0.29	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	ND <0.0065	ND <0.0073	-	-	-	-	-	-
Total Xylenes	500	1,000	19.5	NA	ND <0.012	-	ND <0.0079	ND <0.68	ND <0.0062	ND <0.0064	ND <0.0040	-	ND <0.0063	ND <0.0059	-	ND <0.0063	ND <0.01	ND <0.0046	0.0064	1.87	ND <0.0073	ND <0.0053	ND <0.0068	ND <0.0044	ND <0.0089	ND <0.0054	0.046	ND <0.0073	-	-	-	-	-	-
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-1254	NE	NE	NA	NA	-	-	-	-	-	-	ND <0.35	-	-	ND <0.35	-	-	-	-	-	-	-	-	-	-	ND <0.38	-	-	-	-	-	-	-	-	-
Aroclor-1268	NE	NE	NA	NA	-	-	-	-	-	-	ND <0.35	-	-	ND <0.35	-	-	-	-	-	-	-	-	-	-	ND <0.38	-	-	-	-	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	ND <0.35	-	-	ND <0.35	-	-	-	-	-	-	-	-	-	-	ND <0.38	-	-	-	-	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	2.63	7.25	-	34.3	0.6	ND <0.54	ND <0.53	-	ND <0.53	ND <0.49	-	ND <0.53	0.8	-	-	-	-	-	-	-	1.18	-	-	-	-	-	-	-	-	-
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides (mg/Kg)																																		
Dieldrin	0.04	0.36	0.01	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 soils at depths greater than 15'
~ - PMC does not apply to samples soils below the seasonal high watertable
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					SB-50	SB-51	SB-51	^SB-52	SB-53	SB-54	SB-55	SB-55	SB-56	SB-57	SB-57	SB-58	SB-59	~^SB-59	~^SB-60	~^SB-61	~^SB-62	~^DUP-101	~^SB-63	~^SB-64	SB-65	~^SB-66	~^SB-66	~^SB-67	HA-01A	HA-01A	HA-01A	HA-02	HA-02	HA-03
Sample Depth					2 - 4 ft	2 - 4 ft	10 - 11 ft	16 - 18 ft	3 - 5 ft	2 - 4 ft	2 - 4 ft	8 - 9 ft	0.5 - 2 ft	2 - 4 ft	~8 - 10 ft	0.5 - 2 ft	2 - 3 ft	22 - 24 ft	40 - 42 ft	23 - 25 ft	31 - 33 ft	31 - 33 ft	35 - 37 ft	38.5 - 40 ft	1 - 3 ft	17 - 19 ft	27 - 29 ft	23 - 25 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0.5 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft
Laboratory ID					CA96214	CA96212	CA96213	CA98185	CB20632	CA98182	CA98180	CA98181	CA98179	CA98177	CA98178	CA98176	CA99812	CA99813	CB17429	CB15819	CB15818	CB15820	CB62410	CB01075	CA91721	CB72216	CB72217	CB72218	CA35714	CA35715	CA35716	CA35717	CA35718	CA35719
Sample Date					7/23/2018	7/23/2018	7/23/2018	7/25/2018	8/28/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/25/2018	7/27/2018	7/27/2018	8/23/2018	8/20/2018	8/20/2018	8/20/2018	10/1/2018	7/30/2018	7/17/2018	10/15/2018	10/15/2018	10/15/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018
Apparent Depth to Water					7'	11'	11'	18'	5'	10'	9'	9'	8'	8'	8'	13'	15'	15'	10'	19'	24'	24'	26.5'	30'	17'	14'	14'	20'	NE	NE	NE	NE	NE	NE
Duplicate					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SB-62	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																														
Semi-VOCs (mg/Kg)																																		
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.29	0.35	-	***45***	ND <0.26	ND <0.25	ND <0.24	ND <0.29	ND <0.24	ND <0.25	ND <0.28	ND <0.25	0.55	ND <0.28	ND <0.29	***10***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	ND <0.52	ND <0.26	ND <0.28	ND <0.25	ND <2.6	***30***	***230***	ND <0.24	***53***	ND <2.5
Acenaphthene	1000*	2500*	84*	NA	ND <0.29	ND <0.25	-	31	ND <0.26	ND <0.25	0.72	ND <0.29	ND <0.24	ND <0.25	ND <0.28	ND <0.25	ND <0.25	ND <0.28	ND <0.29	11	ND <0.26	ND <0.26	ND <0.26	ND <0.27	ND <0.52	ND <0.26	ND <0.28	ND <0.25	ND <2.6	28	***190***	ND <0.24	ND <16	ND <2.5
Acenaphthylene	1,000	2,500	84	NA	0.29	1.6	-	9.9	0.72	0.33	1.1	ND <0.29	0.99	ND <0.25	ND <0.28	0.33	0.37	ND <0.28	ND <0.29	3.3	ND <0.26	ND <0.26	ND <0.26	ND <0.27	8.4	ND <0.26	ND <0.28	ND <0.25	6.4	8.3	ND <32	ND <0.24	43	4.6
Anthracene	1,000	2,500	400	NA	ND <0.29	1.5	-	24	0.65	0.6	3.8	ND <0.29	0.9	ND <0.25	ND <0.28	0.32	ND <0.25	ND <0.28	ND <0.29	9.2	ND <0.26	ND <0.26	ND <0.26	ND <0.27	2.1	ND <0.26	ND <0.28	ND <0.25	3	16	89	ND <0.24	42	3.4
Benz(a)anthracene	1	7.8	1	NA	0.36	***5.5***	-	***12***	***3.7***	***2.3***	***14***	ND <0.29	***3.7***	ND <0.25	ND <0.28	***1.4***	0.35	ND <0.28	ND <0.29	***8***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	0.65	ND <0.26	ND <0.28	ND <0.25	***8.6***	***17***	***57***	0.25	***39***	***14***
Benzo(a)pyrene	1	1	1	NA	0.53	***5.7***	-	***7.9***	***4.4***	***2.3***	***11***	0.81	***3.4***	ND <0.25	ND <0.28	***2.5***	0.3	ND <0.28	ND <0.29	***6.9***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***2.7***	ND <0.26	ND <0.28	ND <0.25	***11***	***20***	***53***	0.28	***33***	***14***
Benzo(b)fluoranthene	1	7.8	1	NA	0.41	***6***	-	***3.9***	***4.1***	***2.2***	***9.9***	0.5	***3.1***	ND <0.25	ND <0.28	***2.3***	0.28	ND <0.28	ND <0.29	***3.3***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***2.7***	ND <0.26	ND <0.28	ND <0.25	***8.4***	***14***	ND <32	ND <0.24	***23***	***10***
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	0.49	***5.2***	-	***3.7***	***2.4***	***1.3***	***6.7***	0.59	***2.1***	ND <0.25	ND <0.4	***1.3***	0.34	ND <0.28	ND <0.29	***2.4***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***4.4***	ND <0.26	ND <0.28	ND <0.25	***10***	***13***	ND <32	0.35	***22***	***8.9***
Benzo(k)fluoranthene	8.4	78	1	NA	0.43	***4.9***	-	***6.6***	***3.4***	***1.7***	***9.6***	0.52	***2.8***	ND <0.25	ND <0.28	***1.8***	0.33	ND <0.28	ND <0.29	***3.8***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***1.4***	ND <0.26	ND <0.28	ND <0.25	***8.6***	***13***	ND <32	0.25	***26***	***11***
Carbazole	31*	290*	1*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.74	-	-	-	-	-	-	-	-	-
Chrysene	84*	780*	1*	NA	0.57	***6.1***	-	***14***	***4.6***	***2.3***	***14***	ND <0.29	***3.8***	ND <0.25	ND <0.28	***1.6***	0.48	ND <0.28	ND <0.29	***8***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***1.3***	ND <0.26	ND <0.28	ND <0.25	***8.5***	***19***	***56***	0.27	***44***	***15***
Dibenz(a,h)anthracene	1*	1*	1*	NA	ND <0.29	***1.2***	-	ND <1.2	0.88	0.33	***1.7***	ND <0.29	0.47	ND <0.25	ND <0.28	0.36	ND <0.25	ND <0.28	ND <0.29	0.59	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***1.2***	ND <0.26	ND <0.28	ND <0.25	ND <2.6	ND <2.7	ND <15	ND <0.24	ND <7.6	ND <2.5
Dibenzofuran	68*	1000*	1.4*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.52	-	-	-	-	-	-	-	-	-
Di-N-Octyl phthalate	1000	2500	20	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.52	-	-	-	-	-	-	-	-	-
Fluoranthene	1,000	2,500	56	NA	0.48	7.2	-	17	3.7	3.9	19	ND <0.29	6.8	ND <0.25	ND <0.28	2.8	0.44	ND <0.28	ND <0.29	19	ND <0.26	ND <0.26	ND <0.26	ND <0.27	ND <0.52	ND <0.26	ND <0.28	ND <0.25	13	37	***130***	0.35	***73***	21
Fluorene	1,000	2,500	56	NA	ND <0.29	0.77	-	26	ND <0.26	ND <0.25	1.3	ND <0.29	0.28	ND <0.25	ND <0.28	ND <0.25	ND <0.25	ND <0.28	ND <0.29	7.1	ND <0.26	ND <0.26	ND <0.26	ND <0.27	0.79	ND <0.26	ND <0.28	ND <0.25	ND <2.6	20	***120***	ND <0.24	49	ND <2.5
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	0.5	***5.3***	-	***3.5***	***2.5***	***1.6***	***7.7***	0.77	***2.5***	ND <0.25	ND <0.48	***1.7***	0.33	ND <0.28	ND <0.29	***2.4***	ND <0.26	ND <0.26	ND <0.26	ND <0.27	***4.1***	ND <0.26	ND <0.28	ND <0.25	***10***	ND <32	0.29	***27***	***9.4***
Naphthalene	1,000	2,500	56	NA	ND <0.29	0.56	-	4.8	0.38	ND <0.25	0.36	ND <0.29	ND <0.24	ND <0.25	ND <0.28	ND <0.25	0.61	ND <0.28	ND <0.29	19	ND <0.26	ND <0.26	ND <0.26	ND <0.27	1.7	ND <0.26	ND <0.28	ND <0.25	ND <2.6	24	***170***	ND <0.24	20	ND <2.5
Pentachlorophenol	5.1	48	1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND<0.74	-	-	-	-	-	-	-	-	-
Phenanthrene	1,000	2,500	40	NA	0.61	6.5	-	***53***	1.5	2	14	ND <0.29	3	ND <0.25	ND <0.28	1.3	0.52	ND <0.28	ND <0.29	22	ND <0.26	ND <0.26	ND <0.26	ND <0.27	ND <0.52	ND <0.26	ND <0.28	ND <0.25	3.8	***56***	***360***	ND <0.24	***190***	11
Pyrene	1,000	2,500	40	NA	0.74	9.1	-	29	5	3.7	18	ND <0.29	6.7	ND <0.25	ND <0.28	2.6	0.58	ND <0.28	ND <0.29	29	ND <0.26	ND <0.26	ND <0.26	ND <0.27	0.93	ND <0.26	ND <0.28	ND <0.25	13	40	***180***	0.41	***110***	24
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	17.1	ND <3.3	-	ND <3.8	ND <3.6	ND <3.9	ND <3.2	ND <4.3	ND <3.5	ND <3.2	ND <4.3	ND <3.2	-	-	-	-	-	-	-	-	ND <3.6	-	-	-	-	-	-	-	-	-
Arsenic	10	10	NA	NA	**15.9**	**10.7**	-	1.53	**16.9**	4.04	2.84	2.08	4.38	1.29	3.06	6.02	-	-	-	-	-	-	-	-	3.17	-	-	-	-	-	-	-	-	-
Barium	4,700	140,000	NA	NA	32.4	62.6	-	36.9	57.7	77.5	35.3	70.7	46.4	36.1	56.2	47.9	-	-	-	-	-	-	-	-	76.8	-	-	-	-	-	-	-	-	-
Beryllium	2	2	NA	NA	1.04	0.63	-	0.81	0.49	ND <0.31	0.32	0.55	0.39	0.34	0.48	0.33	-	-	-	-	-	-	-	-	0.49	-	-	-	-	-	-	-	-	-
Cadmium	34	1,000	NA	NA	0.46	0.68	-	0.45	0.47	0.62	ND <0.32	ND <0.43	0.4	ND <0.32	ND <0.43	0.7	-	-	-	-	-	-	-	-	ND <0.36	-	-	-	-	-	-	-	-	-
Chromium			NA	NA	12.5	12.3	-	26.5	14.1	32.8	18.5	16.9	15.4	9.84	16.8	24.8	-	-	-	-	-	-	-	-	47.3	-	-	-	-	-	-	-	-	-
Copper	2,500	76,000	NA	NA	56.4	69.7	-	15.9	99.8	41.5	33	13	27.2	11	11.8	35.8	-	-	-	-	-	-	-	-	22.6	-	-	-	-	-	-	-	-	-
Lead	400	1,000	NA	NA	273	44.2	-	8.75	110	125	88.9	36.8	66.4	9.47	8.03	147	-	-	-	-	-	-	-	-	79.3	-	-	-	-	-	-	-	-	-
Mercury	20	610	NA	NA	0.41	0.19	-	ND <0.03	0.26	0.17	0.04	ND <0.03	0.04	ND <0.03	0.08	0.24	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-
Nickel	1,400	7,500	NA	NA	12.4	14.3	-	20.6	25.2	6.56	9.01	9.65	10.3	6.04	8.71	9.58	-	-	-	-	-	-	-	-	9.8	-	-	-	-	-	-	-	-	-
Selenium	340	10,000			ND <1.7	ND <1.3	-	ND <1.5	ND <1.4	ND <1.6	ND <1.3	ND <1.7	ND <1.4	ND <1.3	ND <1.7	ND <1.3	-	-	-	-	-	-	-	-	ND <1.5	-	-	-	-	-	-	-	-	-
Silver	340	10,000	NA	NA	ND <0.43	ND <0.33	-	ND <2.5	ND <0.36	ND <2.5	ND <2.5	ND <2.5	ND <2.5	ND <2.5	ND <2.5	ND <2.5	-	-	-	-	-	-	-	-	ND <1.8	-	-	-	-	-	-	-	-	-
Vanadium	470	14,000	NA	NA	25.9	21.5	-	35.1	19	19.9	31.8	34.3	26.2	23.8	39.6	33.7	-	-	-	-	-	-	-	-	28.8	-	-	-	-	-	-	-	-	-
Zinc	20,000	610,000	NA	NA	39.1	63.7	-	73.1	125	83.8	62.8	62.2	78.1	28.1	50.5	104	-	-	-	-	-	-	-	-	35.3	-	-	-	-	-	-	-	-	-
SPLP Metals (mg/L)																																		
Antimony	NA	NA	0.06	NA	-	-	-	-	-	ND <0.005	-	ND <0.005	-	-	ND <0.005	ND <0.005	-	-	-	-	-	-	-	-	ND <0.02	-	-	-	-	-	-	-	-	-
Arsenic	NA	NA	0.5	NA	-	-	-	-	-	ND <0.004	-	ND <0.004	-	-	0.005	0.008	-	-	-	-	-	-	-	-	ND <0.02	-	-	-	-	-	-	-	-	-
Barium	NA	NA	10	NA	-	-	-	-	-	ND <0.010	-	ND <0.010	-	-	0.078	ND <0.010	-	-	-	-	-	-	-	-	0.149	-	-	-	-	-	-	-	-	-
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	-	-	0.022	ND <0.010	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-	-	-	-	-	-
Copper	NA	NA	13	NA	-	-	-	-	-	ND <0.010	-	ND <0.010	-	-	0.019	0.012	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-	-	-	-	-	-
Lead	NA	NA	0.15	NA	-	-	-	-	-	0.027	-	ND <0.010	-	-	0.056	0.012	-	-	-	-	-	-	-	-	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	-	-	-	-	-	-	-	-	-
Selenium	NA	NA	0.5	NA	-	-	-	-	-	ND <0.020	-	ND <0.020	-	-	ND <0.020	ND <0.020	-	-	-	-	-	-	-	-	ND <0.020	-	-	-	-	-	-	-	-	-
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	-	-	0.023	0.014	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-	-	-	-	-	-
Zinc	NA	NA	50	NA	-	-	-	-	-	0.014	-	ND <0.010	-	-	0.072	0.014	-	-	-	-	-	-	-	-	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 samples collected below the seasonal high water table
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID				HA-03	Dup-1	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06	HA-06	HA-06	HA-07	HA-07	HA-07	HA-07A	HA-08	HA-08	HA-08	HA-09	HA-09	HA-09	HA-9A	HA-10	HA-11	HA-12	HA-13	HA-14
Sample Depth				0.5 - 1 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0.7 - 1.25 ft	1.25 - 1.75 ft	1.75 - 2 ft	0 - 1 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	2 - 2.5 ft	2 - 2.5 ft	1 - 2 ft	2 - 4 ft	0.5 - 1.5 ft	2 - 3 ft
Laboratory ID				CA35720	CA35723	CA35721	CA35722	CA35724	CA35725	CA35726	CA35727	CA35728	CA35729	CA35730	CA35731	CA35732	CA35733	CA35734	CA35735	CA48719	CA48720	CA48721	CA95005	CA48722	CA48723	CA48724	CA48725	CA48726	CA48727	CA95006	CA95007	CA95008	CB22896	CB82853	CB82854
Sample Date				4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	5/16/2018	5/16/2018	5/16/2018	07/20/18	5/16/2018	5/16/2018	5/16/2018	5/16/2018	5/16/2018	5/16/2018	07/20/18	7/20/2018	7/20/2018	8/30/2018	10/24/2018	10/24/2018
Apparent Depth to Water				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Duplicate				-	HA-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																															
CT ETPH (mg/Kg)	500	2,500	2,500	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**780**	-	-	-	-	-	-	**2500**	**5800**	78	ND <63	480	ND <390
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (mg/Kg)																																			
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Isopropyltoluene	NE	NE	NE	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	21	200	0.2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	500*	1000*	70*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, sec-	500*	1000*	70*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	500	1,000	10.1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene (cumene)	500*	1000*	5*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylene[1]	NE	NE	NE	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	82	760	1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	1,000	2,500	56	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	500*	1000*	10*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene[1]	NE	NE	NE	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	500	1,000	20	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	12	110	1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	500	1,000	67	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	500	1,000	19.5	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-1254	NE	NE	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.36	-	-	-	-	-	ND <0.38	-	-	-	-	-	-
Aroclor-1268	NE	NE	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.36	-	-	-	-	-	ND <0.38	-	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.36	-	-	-	-	-	ND <0.38	-	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.94	-	-	-	-	-	7.36	32.8	ND <0.50	0.58	ND <0.76	ND <0.71
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-
Pesticides (mg/Kg)																																			
Dieldrin	0.04	0.36	0.01	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 soils at depths greater than 15'
~ - PMC does not apply to samples soils below the seasonal high watertable
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					HA-03	Dup-1	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06	HA-06	HA-06	HA-07	HA-07	HA-07	HA-07A	HA-08	HA-08	HA-08	HA-09	HA-09	HA-09	HA-9A	HA-10	HA-11	HA-12	HA-13	HA-14
Sample Depth					0.5 - 1 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0.7 - 1.25 ft	1.25 - 1.75 ft	1.75 - 2 ft	0 - 1 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	0.5 - 1 ft	1 - 1.5 ft	1.5 - 2 ft	2 - 2.5 ft	2 - 2.5 ft	1 - 2 ft	2 - 4 ft	0.5 - 1.5 ft	2 - 3 ft
Laboratory ID					CA35720	CA35723	CA35721	CA35722	CA35724	CA35725	CA35726	CA35727	CA35728	CA35729	CA35730	CA35731	CA35732	CA35733	CA35734	CA35735	CA48719	CA48720	CA48721	CA49005	CA48722	CA48723	CA48724	CA48725	CA48726	CA48727	CA49006	CA49007	CA49008	CB22896	CB82853	CB82854
Sample Date					4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	5/16/2018	5/16/2018	5/16/2018	07/20/18	5/16/2018	5/16/2018	5/16/2018	5/16/2018	5/16/2018	5/16/2018	07/20/18	7/20/2018	7/20/2018	8/30/2018	10/24/2018	10/24/2018
Apparent Depth to Water					NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Duplicate					-	HA-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC																																
Semi-VOCs (mg/Kg)																																				
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <2.5	ND <2.5	ND <2.6	ND <2.6	ND <2.7	ND <0.27	ND <0.28	ND <0.28	ND <0.14	0.52	0.57	ND <0.26	ND <0.15	ND <0.14	ND <0.14	0.44	ND <0.25	ND <0.26	ND <5.4	ND <0.5	0.26	ND <0.27	ND <0.27	ND <0.26	0.49	ND <5.6	1.9	2.4	ND <0.25	ND <0.29	ND <0.39	ND <0.37
Acenaphthene	1000*	2500*	84*	NA	ND <2.5	ND <2.5	ND <2.6	ND <2.6	ND <2.7	ND <0.27	ND <0.28	ND <0.28	ND <0.14	ND <0.25	ND <0.25	ND <0.26	ND <0.15	ND <0.14	ND <0.14	ND <0.25	ND <0.25	ND <0.26	ND <5.4	ND <0.5	ND <0.25	ND <0.27	ND <0.27	ND <0.26	0.31	ND <6.4	ND <1.3	ND <1.4	ND <0.25	ND <0.29	ND <0.39	ND <0.37
Acenaphthylene	1,000	2,500	84	NA	7.5	8.8	5	6.2	6.3	0.37	0.37	ND <0.28	ND <0.14	2.5	2.6	ND <0.26	0.82	0.39	ND <0.14	2.4	0.69	ND <0.26	ND <5.4	1.4	1.5	2.5	0.86	2.7	3.4	16	12	21	ND <0.25	0.61	0.6	0.53
Anthracene	1,000	2,500	400	NA	5.7	6	5.9	12	ND <2.7	0.47	1.2	0.4	ND <0.14	1.1	1	ND <0.26	0.3	0.24	ND <0.14	1.5	0.27	ND <0.26	ND <5.4	0.56	0.67	1.2	0.6	1.5	2.4	ND <6.4	3.7	7.8	ND <0.25	ND <0.29	0.97	0.79
Benz(a)anthracene	1	7.8	1	NA	**24**	**25**	**17**	**29**	**4.2**	**2.1**	**4.3**	**1.3**	ND <0.14	**3.4**	**2.6**	ND <0.26	0.74	0.71	0.15	**5.8**	0.92	0.35	**25**	**1.5**	**1.7**	**4.6**	**2**	**6.8**	**6.5**	**7.2**	**3.3**	**11**	ND <0.25	**1.6**	**4.1**	**3.4**
Benzo(a)pyrene	1	1	1	NA	**32**	**25**	**14**	**26**	**7.3**	**1.8**	**3.5**	**1.1**	ND <0.14	**2.1**	**2.1**	0.31	**1.1**	0.84	0.17	**5.3**	**1.3**	0.39	**21**	**1.9**	**2.1**	**4.4**	**2.1**	**7.6**	**6.8**	**23**	**7.2**	**14**	ND <0.25	**1.9**	**4.4**	**3.7**
Benzo(b)fluoranthene	1	7.8	1	NA	**24**	**21**	**11**	**21**	**7.6**	**1.5**	**3.1**	0.92	ND <0.14	**3**	**2.9**	0.33	0.79	0.64	ND <0.14	**4.3**	0.9	0.31	**18**	**2.1**	**1.7**	**5.4**	**2**	**6.4**	**6.8**	**15**	**6.6**	**17**	ND <0.25	**1.7**	**5**	**3.9**
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	***18***	***17***	***9.1***	***15***	***11***	***1.2***	***1.6***	0.67	ND <0.14	***3.1***	***3.2***	0.49	1	0.64	ND <0.14	***3.3***	***1.2***	0.33	***11***	***2.2***	***2.4***	***3.4***	***1.7***	***5.4***	***6***	***26***	***12***	***24***	ND <0.25	***1.2***	***2.5***	***2.4***
Benzo(k)fluoranthene	8.4	78	1	NA	**25**	**22**	**12**	**23**	**8**	**1.7**	**3.5**	**1.1**	ND <0.14	**3.2**	**3**	0.43	0.79	0.68	0.15	**3.8**	0.92	0.31	**18**	**1.8**	**1.6**	**4.3**	**1.8**	**5**	**4.2**	**13**	**6**	**17**	ND <0.25	**1.5**	**3.9**	**3**
Carbazole	31*	290*	1*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	84*	780*	1*	NA	***25***	***27***	***18***	***28***	***7.1***	***2.3***	***4.3***	***1.2***	ND <0.14	***4.6***	***3.3***	ND <0.26	1	0.76	0.16	***6.4***	***1.1***	0.37	***23***	***2***	***2***	***5.1***	***2.1***	***7***	***7.3***	***9.3***	***5.1***	***18***	ND <0.25	***2***	***5***	***4***
Dibenz(a,h)anthracene	1*	1*	1*	NA	***5.2***	***4.9***	***2.6***	***4.7***	***3***	0.39	0.51	ND <0.28	ND <0.14	0.72	0.64	ND <0.26	0.23	0.16	ND <0.14	0.88	0.26	ND <0.26	ND <5.4	ND <0.5	0.58	1	0.48	***1.8***	***1.4***	ND <6.4	***2.6***	***4.4***	ND <0.25	0.33	0.82	0.77
Dibenzofuran	68*	1000*	1.4*	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-N-Octyl phthalate	1000	2500	20	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	1,000	2,500	56	NA	37	40	32	**57**	3.3	2.9	6.5	2.2	ND <0.14	2.8	2	ND <0.26	0.94	1.2	0.24	7.1	1	0.43	34	1.6	2.2	7.2	3	8	11	ND <6.4	3.4	8.9	ND <0.25	2.6	10	8.3
Fluorene	1,000	2,500	56	NA	ND <2.5	ND <2.5	2.9	4.5	ND <2.7	ND <0.27	ND <0.28	ND <0.28	ND <0.14	ND <0.25	ND <0.25	ND <0.26	ND <0.15	ND <0.14	ND <0.14	ND <0.25	ND <0.25	ND <0.26	ND <5.4	ND <0.5	ND <0.25	0.42	ND <0.27	0.31	0.26	ND <6.4	ND <1.3	1.6	ND <0.25	ND <0.29	0.42	ND <0.37
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	***20***	***18***	***9***	***17***	***11***	***1.4***	***1.8***	0.76	ND <0.14	***2.9***	***2.9***	0.49	***1.3***	0.77	0.16	***3.5***	***1.2***	0.33	***13***	***2.0000***	***2.5***	***4.1***	***1.8***	***6.1***	***6.2***	***24***	***11***	***23***	ND <0.25	***1.4***	***3.1***	***2.9***
Naphthalene	1,000	2,500	56	NA	ND <2.5	ND <2.5	ND <2.6	ND <2.6	ND <2.7	ND <0.27	ND <0.28	ND <0.28	ND <0.14	0.71	0.74	ND <0.26	ND <0.15	ND <0.14	ND <0.14	0.56	ND <0.25	ND <0.26	ND <5.4	ND <0.5	0.42	0.6	ND <0.27	0.31	0.63	ND <6.4	1.6	2.7	ND <0.25	ND <0.29	ND <0.39	ND <0.37
Pentachlorophenol	5.1	48	1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	1,000	2,500	40	NA	17	**19**	24	**47**	3.5	1.6	3.7	1.6	ND <0.14	1.4	0.97	ND <0.26	0.44	0.63	ND <0.14	5.1	0.34	ND <0.26	11	0.88	0.98	2.1	1.8	3	10	ND <6.4	1.9	3.1	ND <0.25	1.2	4.5	3.7
Pyrene	1,000	2,500	40	NA	33	**41**	32	**51**	5.3	2.7	6.2	1.9	ND <0.14	5	3.6	ND <0.26	1.4	1.3	0.24	11	1.4	0.49	34	-	2.9	7.2	3	9.9	12	10	6	19	ND <0.25	2.7	8.5	7.2
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 <3.7	-	-	-	-	-	-	ND <4.1	ND <3.8	ND <3.3	ND <4.4	ND <6.1	ND <5.6
Arsenic	10	10	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.84	-	-	-	-	-	-	**11.8**	**15.1**	**13.8**	6.16	1.7	1.1
Barium	4,700	140,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.6	-	-	-	-	-	-	70.1	64.9	45.1	74.6	67.8	31.3
Beryllium	2	2	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.54	-	-	-	-	-	-	0.41	0.4	0.39	0.53	ND <0.48	ND <0.45
Cadmium	34	1,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	-	-	-	-	-	-	0.83	0.67	0.39	0.56	ND <0.61	ND <0.56
Chromium			NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.1	-	-	-	-	-	-	15.7	20.6	12.4	33	20.5	11.3
Copper	2,500	76,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.6	-	-	-	-	-	-	103	104	20.6	37.2	38	23.6
Lead	400	1,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.4	-	-	-	-	-	-	80.9	106	10.2	123	60.7	50.4
Mercury	20	610	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	-	-	0.13	0.46	0.03	0.33	0.05	ND <0.04
Nickel	1,400	7,500	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.7	-	-	-	-	-	-	8.58	9.61	9.92	8.79	9.84	5.32
Selenium	340	10,000			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <1.5	-	-	-	-	-	-	ND <1.6	ND<1.5	ND<1.3	ND<1.8	ND<2.4	ND<2.2
Silver	340	10,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.37	-	-	-	-	-	-	ND <0.41	ND <0.38	ND <0.33	ND <0.44	ND <0.61	ND <0.56
Vanadium	470	14,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.9	-	-	-	-	-	-	29.2	29.1	29.5	29.9	30.2	18.6
Zinc	20,000	610,000	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87.8	-	-	-	-	-	-	60.5	52.7	41	89.5	110	63
SPLP Metals (mg/L)																																				
Antimony	NA	NA	0.06	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	NA	NA	0.5	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.004	-	-	-	-
Barium	NA	NA	10	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.075	-	-	-	-
Beryllium	NA	NA	0.04	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.001	-	-	-	-
Cadmium	NA	NA	0.05	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.005	-	-	-	-
Chromium	NA	NA	0.5	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Copper	NA	NA	13	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Lead	NA	NA	0.15	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Mercury	NA	NA	0.02	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.0005	-	-	-	-
Nickel	NA	NA	1	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Selenium	NA	NA	0.5	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND<0.02	-	-	-	-
Silver	NA	NA	0.36	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Vanadium	NA	NA	0.5	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND <0.010	-	-	-	-
Zinc	NA	NA	50	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-	-	-	-

Notes:
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mg/Kg - milligrams per kilogram
mg/L - milligrams per liter
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SVOCs - Semi Volatile Organic Compounds
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1 - Xylene criteria apply to Total Xylenes only
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~ - PMC does not apply to samples collected below the seasonal high water table
# - PMC exempt based on SPLP analysis
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
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					**HA-15**	**HA-16**	**HA-DUP**	**HA-17**	**HA-18**
Sample Depth					1.5 - 2 ft	0.5 - 2.5 ft	0.5 - 2.5 ft	1 - 2 ft	1 - 2 ft
Laboratory ID					CB82855	CB22895	CB22897	CB22894	CB82856
Sample Date					10/24/2018	8/30/2018	8/30/2018	8/30/2018	10/24/2018
Apparent Depth to Water					NE	NE	NE	NE	NE
Duplicate					-	-	HA-16	-	-
	CT DEEP RSRs								
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC					
CT ETPH (mg/Kg)	500	2,500	2,500	NA	ND <64	**1100**	**1300**	350	**4500**
SPLP CT ETPH (mg/L)	NA	NA	NA	2,500	-	-	-	-	-
VOCs (mg/Kg)									
1,2,4-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	-
1,3,5-Trimethylbenzene	500*	1000*	28*	NA	-	-	-	-	-
2-Isopropyltoluene	NE	NE	NE	NA	-	-	-	-	-
4-Isopropyltoluene (cymene)	500*	1000*	5*	NA	-	-	-	-	-
Benzene	21	200	0.2	NA	-	-	-	-	-
Butylbenzene, n-	500*	1000*	70*	NA	-	-	-	-	-
Butylbenzene, sec-	500*	1000*	70*	NA	-	-	-	-	-
Ethylbenzene	500	1,000	10.1	NA	-	-	-	-	-
Isopropylbenzene (cumene)	500*	1000*	5*	NA	-	-	-	-	-
m,p-Xylene[1]	NE	NE	NE	NA	-	-	-	-	-
Methylene chloride	82	760	1	NA	-	-	-	-	-
Naphthalene	1,000	2,500	56	NA	-	-	-	-	-
n-Propylbenzene	500*	1000*	10*	NA	-	-	-	-	-
o-Xylene[1]	NE	NE	NE	NA	-	-	-	-	-
Styrene	500	1,000	20	NA	-	-	-	-	-
Tetrachloroethene	12	110	1	NA	-	-	-	-	-
Toluene	500	1,000	67	NA	-	-	-	-	-
Total Xylenes	500	1,000	19.5	NA	-	-	-	-	-
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-1254	NE	NE	NA	NA	-	-	-	-	-
Aroclor-1268	NE	NE	NA	NA	-	-	-	-	-
Total PCBs	1	10	NA	NA	-	-	-	-	-
Total Cyanide (mg/Kg)	1,400	41,000	NA	NA	ND <0.65	56.7	124	3.59	2.02
SPLP Cyanide (mg/L)	NA	NA	2	NA	-	-	-	-	-
Pesticides (mg/Kg)									
Dieldrin	0.04	0.36	0.01	NA	-	-	-	-	-

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PCB - Polychlorinated Biphenyl
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[1] - Xylene criteria apply to Total Xylenes only
^ - DEC does not apply to soils at depths greater than 15'
~ - PMC does not apply to samples soils below the seasonal high watertable
# - PMC exempt based on SPLP analysis
Only compounds detected are summarized in the table (compounds that are not listed were not detected)
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Bolded Only - Concentration exceeds APS Criteria
- Sample not analyzed

TABLE 2
Summary of Soil Analytical Data
13 Maple Street
Rockville, CT

Sample ID					HA-15	HA-16	HA-DUP	HA-17	HA-18
Sample Depth	CT DEEP RSRs				1.5 - 2 ft	0.5 - 2.5 ft	0.5 - 2.5 ft	1 - 2 ft	1 - 2 ft
Laboratory ID					CB82855	CB22895	CB22897	CB22894	CB82856
Sample Date					10/24/2018	8/30/2018	8/30/2018	8/30/2018	10/24/2018
Apparent Depth to Water					NE	NE	NE	NE	NE
Duplicate					-	-	HA-16	-	-
	RES DEC^	I/C DEC^	GB PMC**~	10X GWPC					
Semi-VOCs (mg/Kg)									
2-Methylnaphthalene	270*	1000*	5.6*	NA	ND <0.3	0.36	0.31	0.36	3.6
Acenaphthene	1000*	2500*	84*	NA	ND <0.3	ND <0.28	0.56	ND <0.25	ND <1.2
Acenaphthylene	1,000	2,500	84	NA	ND <0.3	2.9	3	2.6	27
Anthracene	1,000	2,500	400	NA	ND <0.3	2	2.9	1.8	25
Benz(a)anthracene	1	7.8	1	NA	ND <0.3	**13**	**18**	**5.6**	**140**
Benzo(a)pyrene	1	1	1	NA	0.34	**18**	**23**	**6.2**	**86**
Benzo(b)fluoranthene	1	7.8	1	NA	0.3	**22**	**21**	***7.4***	**77**
Benzo(g,h,i)perylene	8.4*	78*	1*	NA	0.48	***13***	***19***	***1.1***	***70***
Benzo(k)fluoranthene	8.4	78	1	NA	ND <0.3	**6.4**	**17**	**2.9**	**88**
Carbazole	31*	290*	1*	NA	-	-	-	-	-
Chrysene	84*	780*	1*	NA	ND <0.3	***15***	***22***	***6.3***	***140***
Dibenz(a,h)anthracene	1*	1*	1*	NA	ND <0.3	***3.3***	***3.8***	0.49	***13***
Dibenzofuran	68*	1000*	1.4*	NA	-	-	-	-	-
Di-N-Octyl phthalate	1000	2500	20	NA	-	-	-	-	-
Fluoranthene	1,000	2,500	56	NA	0.37	17	28	6.2	**120**
Fluorene	1,000	2,500	56	NA	ND <0.3	0.39	0.73	0.45	3.4
Indeno(1,2,3-cd)pyrene	1*	7.8*	1*	NA	0.57	***12***	***18***	***1.3***	***72***
Naphthalene	1,000	2,500	56	NA	ND <0.3	0.63	0.59	0.58	6.7
Pentachlorophenol	5.1	48	1	NA	-	-	-	-	-
Phenanthrene	1,000	2,500	40	NA	ND <0.3	4.7	9.7	5	5.2
Pyrene	1,000	2,500	40	NA	0.42	26	38	12	**270**
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 <4.2	ND <4.1	ND <3.8	ND <3.6	ND <3.9
Arsenic	10	10	NA	NA	**21.1**	**18.6**	**18.6**	3.72	**10.4**
Barium	4,700	140,000	NA	NA	83.9	77.9	83.4	178	45.4
Beryllium	2	2	NA	NA	0.79	0.37	0.41	0.33	0.42
Cadmium	34	1,000	NA	NA	0.63	0.77	0.78	2.39	ND <0.39
Chromium			NA	NA	18	15.6	15.7	21	10.3
Copper	2,500	76,000	NA	NA	65	42.7	44	198	36.6
Lead	400	1,000	NA	NA	473	101	110	169	76.6
Mercury	20	610	NA	NA	0.04	1.09	0.63	2.35	0.52
Nickel	1,400	7,500	NA	NA	17.6	10.2	10.9	14.2	9.45
Selenium	340	10,000			ND<1.7	ND<1.6	ND <1.5	ND<1.4	ND<1.5
Silver	340	10,000	NA	NA	ND <0.42	ND <0.41	ND <0.38	1.06	ND <0.39
Vanadium	470	14,000	NA	NA	32.4	27.3	29.3	31.3	17.1
Zinc	20,000	610,000	NA	NA	53	101	107	278	35.3
SPLP Metals (mg/L)									
Antimony	NA	NA	0.06	NA	-	-	-	-	-
Arsenic	NA	NA	0.5	NA	-	-	-	ND <0.004	-
Barium	NA	NA	10	NA	-	-	-	0.024	-
Beryllium	NA	NA	0.04	NA	-	-	-	ND <0.001	-
Cadmium	NA	NA	0.05	NA	-	-	-	ND <0.005	-
Chromium	NA	NA	0.5	NA	-	-	-	ND <0.010	-
Copper	NA	NA	13	NA	-	-	-	0.127	-
Lead	NA	NA	0.15	NA	-	-	-	**0.034**	-
Mercury	NA	NA	0.02	NA	-	-	-	ND <0.0005	-
Nickel	NA	NA	1	NA	-	-	-	ND <0.010	-
Selenium	NA	NA	0.5	NA	-	-	-	ND<0.02	-
Silver	NA	NA	0.36	NA	-	-	-	ND <0.010	-
Vanadium	NA	NA	0.5	NA	-	-	-	ND <0.010	-
Zinc	NA	NA	50	NA	-	-	-	0.028	-

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 samples collected below the seasonal high water table

- PMC exempt based on SPLP analysis

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

Sample ID	CTDEEP RSR			MW-1S^		MW-1D		MW-2SR	MW-2BR		MW-3S		MW-3BR			MW-4S			MW-4SR	MW-4D			MW-5S	
Sample Date				11/22/2016	5/24/2018	11/22/2016	5/24/2018	5/16/2018	11/10/2017	5/16/2018	11/22/2016	5/24/2018	11/9/2017	5/30/2018	10/24/2018	12/8/2016	5/22/2018	5/22/2018	10/24/2018	11/21/2016	12/8/2016	5/22/2018	12/2/2016	5/16/2018
Lab Sample ID				BV89929	CA58993	BV89928	CA58994	CA48716	BZ39893	CA48717	BV89927	CA58995	BZ39264	CA61339	CB82840	BX01511	CA51710	CA51719	CB82836	BV89159	BX01512	CA51711	BV94073	CA48713
Duplicate Sample																		MW-4S						
	SWPC	RES VC	I/C VC																					
CT ETPH (ug/L)																								
CT ETPH	*250*	*250*	*250*	***490***	79	ND <75	ND <67	ND <66	ND <67	ND <66	ND <70	***1000***	84	ND <66	ND <71	ND <70	ND <66	ND <66	ND <67	ND <70	-	ND <66	240	***340***
Cyanide (ug/L)																								
Total Cyanide	52	NA	NA	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	11	12	13	ND <10	-	ND <10	ND <10	ND <10
Metals (ug/L)																								
Antimony	86000	NA	NA	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <3	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	-	ND <5	ND <5	ND <5
Arsenic	4	NA	NA	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	-	ND <4	ND <4	ND <4
Barium	*2200*	NA	NA	274	273	327	321	121	347	365	19	48	135	207	230	78	84	86	118	258	-	281	62	79
Total Chromium	NE	NA	NA	ND <1	15	2	683	ND <1	10	ND <1	8	6	96	7	5	ND <1	ND <1	ND <1	ND <1	1	-	18	ND <1	ND <1
Copper	48	NA	NA	ND <5	ND <5	ND <5	**219**	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	-	ND <5	ND <5	ND <5
Lead	13	NA	NA	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	3	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	-	ND <2	ND <2	ND <2
Mercury	0.4	NA	NA	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	-	ND <0.2000	ND <0.2000	ND <0.2000
Nickel	880	NA	NA	7	6	359	**5670**	ND <1	ND <1	ND <1	8	28	ND <1	ND <1	ND <1	1	1	1	ND <1	4	-	13	ND <1	ND <1
Silver				ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	-	ND<1	ND<1	ND<1
Vanadium	*270*	NA	NA	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	4	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	-	ND <2	ND <2	ND <2
Zinc	123	NA	NA	ND <2	2	ND <2	48	4	4	ND <2	ND <2	2	ND <2	ND <2	ND <4	6	30	31	19	ND <2	-	2	9	13
VOCs (ug/L)																								
1,1,1-Trichloroethane	62000	20400	50000	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	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*	2.2	1.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	21	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	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	11	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
4-Isopropyltoluene (cymene)	*200*	*870*	*2100*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	1.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	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	ND <0.70	ND <0.70	45	ND <0.70	1.2	ND <0.70	ND <0.70	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	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.2	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	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	ND <5.0	5.1	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
Chloroform	14100	287	710	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	7.8	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
Dibromochloromethane	1020	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	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	ND <0.50	ND <0.50
Ethylbenzene	580000	50000	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	60	1.3	1.2	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
Isopropylbenzene (cumene)	*210*	*900*	*2200*	2	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	2.7	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
m,p-Xylene	NE	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	87	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
Methyl tert butyl ether	*10000*	50000	50000	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	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <1.0	ND <1.0
Methylene chloride	48000	50000	50000	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	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <1.0	ND <1.0
Naphthalene	*210*	NE	NE	ND <1.0	1.4	ND <1.0	ND <1.0	4.6	ND <1.0	ND <1.0	ND <1.0	210	19	1.3	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	5	2.7
n-Propylbenzene	*10000*	*1200*	*2900*	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	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <1.0	ND <1.0
o-Xylene	NE	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	69	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
Styrene	*320*	580	2065	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	5.8	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
Tetrachloroethene	88	1500	3820	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	2.1	1.7	2	1	ND <1.0	-	ND <1.0	ND <1.0	ND <1.0
Toluene	4000000	23500	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	86	ND <1.0	3.5	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
Total Xylenes	*270*	21300	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	156	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
SVOCs (ug/L)																								
2,4-Dimethylphenol	*150*	NE	NE	ND <1.1	ND <0.94	ND <1.0	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <1.0	8.3	ND <0.98	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <0.95	ND <1.0	-	ND <1.0	ND <0.95	ND <1.0	ND <0.94
2-Methylnaphthalene	*62*	*1000*	*13100*	ND <1.1	ND <0.94	ND <1.0	ND <0.94	1.3	ND <0.95	ND <0.94	ND <1.0	ND <0.94	3.1	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <0.95	ND <1.0	-	ND <1.0	ND <0.95	ND <1.0	ND <0.94
2-Methylphenol	*670*	NE	NE	ND <1.1	ND <0.94	ND <1.0	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <1.0	1.2	ND <0.98	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <0.95	ND <1.0	-	ND <1.0	ND <0.95	ND <1.0	ND <0.94
Acenaphthene	*150*	*30500*	*50000*	16	6.8	ND <0.05	ND <0.05	1.2	ND <0.05	ND <0.05	ND <0.05	2.6	1.3	0.35	ND <0.06	ND <0.05	ND <0.05	ND <0.05	0.69	-	ND <0.05	ND <0.05	11	5.5
Acenaphthylene	0.3	NE	NE	**2.9**	**0.63**	ND <0.05	ND <0.05	**1.3**	ND <0.05	ND <0.05	ND <0.05	**1.3**	**1.6**	0.13	ND <0.06	0.11	0.22	0.1	**0.37**	-	0.12	ND <0.05	**3.4**	**1.9**
Acetophenone	NE	NE	NE	ND <5.4	ND <4.7	ND <5.0	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <5.0	ND <4.7	ND <4.9	ND <4.7	ND <5.6	ND <5.0	ND <4.7	ND <4.8	ND <5.1	-	ND <5.0	ND <4.8	ND <5.0	ND <4.7
Anthracene	1100000	NE	NE	0.88	ND <0.05	ND <0.05	ND <0.05	0.92	ND <0.05	ND <0.05	ND <0.05	0.58	0.35	0.08	ND <0.06	ND <0.05	0.13	0.14	0.31	-	ND <0.05	ND <0.05	3.3	1.8
Benz(a)anthracene	0.3	NE	NE	0.12	ND <0.05	ND <0.05	ND <0.05	**0.43**	ND <0.05	ND <0.05	ND <0.05	0.2	ND <0.05	ND <0.05	ND <0.06	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	**0.33**	0.27
Benzo(a)pyrene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	**0.41**	0.06	ND <0.05	ND <0.05	**0.39**	ND <0.05	ND <0.05	ND <0.06	ND <0.05	0.07	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	ND <0.05	0.22	ND <0.05	ND <0.05	ND <0.05	0.23	ND <0.05	ND <0.05	ND <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(g,h,i)perylene	*150*	NE	NE	ND <0.54	ND <0.19	ND <0.50	ND <0.19	0.32	ND <0.19	ND <0.19	ND <0.50	0.24	ND <0.20	ND <0.19	ND <0.22	ND <0.50	ND <0.19	ND <0.19	ND <0.20	-	ND <0.50	ND <0.19	ND <0.50	ND <0.19
Benzo(k)fluoranthene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.23	ND <0.05	ND <0.05	ND <0.05	0.29	ND <0.05	ND <0.05	ND <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
bis(2-Ethylhexyl)phthalate	59	NE	NE	ND <0.54	ND <0.47	ND <0.50	ND <0.47	ND <0.47	ND <0.48	ND <0.47	ND <0.50	ND <0.47	ND <0.49	ND <0.47	ND <0.56	ND <0.50	ND <0.47	ND <0.48	ND <0.51	-	ND <0.50	ND <0.48	ND <0.50	ND <0.47
Carbazole	*53*	NE	NE	ND <5.4	ND <4.7	ND <5.0	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <5.0	ND <4.7	ND <4.9	ND <4.7	ND <5.0	ND <5.0	ND <4.7	ND <4.8	ND <5.0	-	ND <5.0	ND <4.8	ND <5.0	ND <4.7
Chrysene	*0.54*	NE	NE	0.1	ND <0.05	ND <0.05	ND <0.05	0.43	ND <0.05	ND <0.05	ND <0.05	0.24	ND <0.05	ND <0.05	ND <0.06	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	0.36	0.27
Dibenz(a,h)anthracene	*0.3*	NE	NE	ND <0.01	ND <0.01	ND <0.01	ND <0.01	0.06	ND <0.01	ND <0.01	ND <0.01	0.05	ND <0.01	ND <0.01	ND <0.06	ND <0.01	0.02	ND <0.01	ND <0.05	-	ND <0.01	ND <0.01	ND <0.01	ND <0.01
Dibenzofuran	*40*	*460*	*5800*	ND <5.4	0.1	ND <5.0	ND <0.05	0.19	ND <0.05	ND <0.05	ND <5.0	ND <0.05	0.11	ND <0.05	ND <0.06	ND <5.0	ND <0.05	ND <0.05	0.2	-	ND <5.0	ND <0.05	ND <5.0	0.68
Diethylphthalate	*2200*	NE	NE	ND <5.4	ND <4.7	ND <5.0	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <5.0	ND <4.7	ND <4.9	ND <4.7	ND <5.6	ND <5.0	ND <4.7	ND <4.8	ND <5.1	-	ND <5.0	ND <4.8	ND <5.0	ND <4.7
Fluoranthene	3700	NE	NE	1.7	0.26	ND <0.05	ND <0.05	1.7	ND <0.05	ND <0.05	ND <0.05	0.42	0.29	0.16	ND <0.06	ND <0.05	ND <0.05	ND <0.05	0.93	-	ND <0.05	ND <0.05	2.7	1.5
Fluorene	140000	NE	NE	0.6	0.35	ND <0.10	ND <0.09	1.6	ND <0.10	ND <0.09	ND <0.10	0.25	0.98	ND <0.09	ND <0.11	ND <0.10	ND <0.09	ND <0.10	ND <0.10	-	ND <0.10	ND <0.10	9.8	5.1
Indeno(1,2,3-cd)pyrene	*0.54*	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.2	ND <0.05	ND <0.05	ND <0.05	0.18	ND <0.05	ND <0.05	ND <0.06	ND <0.05	0.07	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	ND <0.05	ND <0.05
Naphthalene	*210*	NE	NE	0.8	0.15	ND <0.10	ND <0.09	3.6	ND <0.10	ND <0.09	ND <0.10	0.25	8.7	0.16	ND <0.20	ND <0.10	ND <0.09	ND <0.10	ND <0.10	-	0.13	ND <0.10	3.6	1.9
Nitrobenzene	*2300*	*51*	*750*	ND <0.11	ND <0.09	ND <0.10	ND <0.09	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.11	ND <0.10	ND <0.09	ND <0.10	ND <0.10	-	0.11	ND <0.10	ND <0.10	ND <0.09
Phenanthrene	*14*	NE	NE	0.55	ND <0.05	ND <0.05	ND <0.05	3.4	ND <0.05	ND <0.05	ND <0.05	0.07	2	0.06	ND <0.06	ND <0.05	ND <0.05	ND <0.05	0.07	-	ND <0.05	ND <0.05	0.92	0.89
Phenol	9.20E+07	NE	NE	ND <1.1	ND <0.94	ND <1.0	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <1.0	8.2	ND <0.98	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <0.95	ND <1.0	-	ND <1.0	ND <0.95	ND <1.0	ND <0.94
Pyrene	110000	NE	NE	1.9	0.29	ND <0.05	ND <0.05	2.4	0.08	ND <0.05	ND <0.05	0.71	0.37	0.26	ND <0.06	ND <0.05	ND <0.05	ND <0.05	1	-	ND <0.05	ND <0.05	4.2	2.3

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
Italics Criteria - Additional Polluting Substance and Alternative Criteria (APS) approved by CTDEEP for use with permission on a site-by-site basis.

[1]- Xylene criteria apply to Total Xylenes
^ - 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
Bolded, boxed, and Italics - Concentration exceeds APS RSR value

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

Sample ID	CTDEEP RSR			MW-5D		MW-6S		MW-6D			MW-7S^				MW-7D^			MW-8SR			MW-9S			MW-9D		
Sample Date				12/2/2016	5/16/2018	11/21/2016	5/22/2018	11/21/2016	12/7/2016	5/22/2018	11/21/2016	12/7/2016	12/7/2016	5/24/2018	11/9/2017	5/31/2018	10/24/2018	11/10/2017	5/16/2018	11/21/2016	5/24/2018	11/21/2016	11/21/2016	12/7/2016	5/24/2018
Lab Sample ID				BV94074	CA48714	BV89151	CA51712	BV89154	BX00267	CA51713	BV89155	BX00266	BX00270	CA58996	BZ39261	CA61367	CB82849	BZ39894	CA48715	BV89152	CA58997	BV89150	BV89158	BX00268	CA59003
Duplicate Sample	SWPC	RES VC	I/C VC										Dup-2									MW-9S				
CT ETPH (ug/L)																										
CT ETPH	*250*	*250*	*250*	ND <70	74	ND <70	ND <66	ND <70	-	ND <66	***1500***	-	-	***1000***	ND <68	ND <67	ND <69	ND <68	ND <67	***4100***	***4500***	***3900***	ND <70	-	ND <67
Cyanide (ug/L)																										
Total Cyanide	52	NA	NA	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	**140**	**62**	**140**	ND <10	-	ND <10
Metals (ug/L)																										
Antimony	86000	NA	NA	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	ND <5	ND <5	ND <5	ND <5	-	ND <5
Arsenic	4	NA	NA	ND <4	ND <4	ND <4	ND <4	4	-	ND <4	ND <4	-	-	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	-	ND <4
Barium	*2200*	NA	NA	164	125	27	31	95	-	73	285	-	-	329	176	299	298	71	56	72	177	70	300	-	294
Total Chromium	NE	NA	NA	3	13	4	40	9	-	22	ND <1	-	-	ND <1	10	2	ND <1	4	3	ND <1	ND <1	ND <1	21	-	674
Copper	48	NA	NA	ND <5	ND <5	ND <5	ND <5	ND <5	-	ND <5	ND <5	-	-	ND <5	ND <5	ND <5	ND <5	12	8	ND <5	ND <5	ND <5	ND <5	-	22
Lead	13	NA	NA	ND <2	ND <2	ND <2	ND <2	ND <2	-	ND <2	ND <2	-	-	ND <2	ND <2	ND <2	ND <2	3	ND <2	ND <2	ND <2	ND <2	ND <2	-	ND <2
Mercury	0.4	NA	NA	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	-	ND <0.2000	ND <0.2000	-	-	0.2	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2	ND <0.2000	-	ND <0.2000
Nickel	880	NA	NA	5	9	10	8	9	-	6	2	-	-	2	2	ND <1	ND <1	2	ND <1	ND <1	ND <1	ND <1	24	-	372
Silver				ND<1	ND<1	ND<1	ND<1	ND<1	-	ND<1	ND<1	-	-	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	-	ND<1
Vanadium	*270*	NA	NA	ND <2	ND <2	ND <2	ND <2	ND <2	-	ND <2	ND <2	-	-	ND <2	7	2	ND <2	4	ND <2	ND <2	ND <2	ND <2	ND <2	-	4
Zinc	123	NA	NA	2	ND <2	4	4	ND <2	-	2	3	-	-	2	7	3	ND <4	8	11	ND <2	ND <2	ND <2	ND <2	-	6
VOCs (ug/L)																										
1,1,1-Trichloroethane	62000	20400	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <10	ND <5.0	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	20	-	-	27	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	***260***	***180***	***260***	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 <2.0	-	-	1.5	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	91	62	92	ND <1.0	-	ND <1.0
4-Isopropyltoluene (cymene)	*200*	*870*	*2100*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	14	ND <10	14	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	1.6	-	-	2	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	28	31	28	ND <0.70	-	ND <0.70
Bromodichloromethane	*510*	*1.1*	*35*	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	-	ND <0.50	ND <0.56	-	-	ND <0.50	1.1	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.3	ND <2.5	ND <1.3	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 <10	-	-	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <25	ND <40	ND <25	ND <5.0	-	ND <5.0
Chloroform	14100	287	710	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	8.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <6.0	ND <5.0	ND <1.0	-	ND <1.0
Dibromochloromethane	1020	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	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.3	ND <2.5	ND <1.3	ND <0.50	-	ND <0.50
Ethylbenzene	580000	50000	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	86	-	-	11	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	570	500	560	ND <1.0	-	ND <1.0
Isopropylbenzene (cumene)	*210*	*900*	*2200*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	11	-	-	11	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	47	36	46	ND <1.0	-	ND <1.0
m,p-Xylene	NE	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	14	-	-	8.5	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	180	130	190	ND <1.0	-	ND <1.0
Methyl tert butyl ether	*10000*	50000	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <10	ND <5.0	ND <1.0	-	ND <1.0
Methylene chloride	48000	50000	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <10	ND <5.0	ND <1.0	-	ND <1.0
Naphthalene	*210*	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	78	-	-	160	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	***2700***	***1600***	***2800***	ND <1.0	-	ND <1.0
n-Propylbenzene	*10000*	*1200*	*2900*	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	2.6	-	-	1.6	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	21	15	22	ND <1.0	-	ND <1.0
o-Xylene	NE	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	54	-	-	46	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	320	240	310	ND <1.0	-	ND <1.0
Styrene	*320*	580	2065	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <10	ND <5.0	ND <1.0	-	ND <1.0
Tetrachloroethene	88	1500	3820	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	ND <2.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <5.0	ND <5.0	ND <5.0	ND <1.0	-	ND <1.0
Toluene	4000000	23500	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	9.2	-	-	1.8	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	40	27	42	ND <1.0	-	ND <1.0
Total Xylenes	*270*	21300	50000	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	ND <1.0	68	-	-	54.5	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	***500***	***370***	***500***	ND <1.0	-	ND <1.0
SVOCs (ug/L)																										
2,4-Dimethylphenol	*150*	NE	NE	ND <1.0	ND <0.94	ND <1.0	ND <0.94	-	ND <1.0	ND <0.94	-	ND <1.0	ND <2.0	ND <0.94	ND <0.99	ND <0.94	ND <1.0	ND <0.98	ND <0.94	-	ND <47	ND <100	-	ND <1.0	ND <0.94
2-Methylnaphthalene	*62*	*1000*	*13100*	ND <1.0	ND <0.94	ND <1.0	ND <0.94	-	ND <1.0	ND <0.94	-	ND <1.0	ND <1.0	ND <0.94	ND <0.99	ND <0.94	ND <1.0	ND <0.98	ND <0.94	-	***160***	***220***	-	ND <1.0	ND <0.94
2-Methylphenol	*670*	NE	NE	ND <1.0	ND <0.94	ND <1.0	ND <0.94	-	ND <1.0	ND <0.94	-	ND <1.0	ND <2.0	ND <0.94	ND <0.99	ND <0.94	ND <1.0	ND <0.98	ND <0.94	-	ND <47	ND <100	-	ND <1.0	ND <0.94
Acenaphthene	*150*	*30500*	*50000*	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	1.1	0.85	-	55	53	21	0.92	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	100	120	-	ND <0.05	ND <0.05
Acenaphthylene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	0.18	0.15	-	**9.1**	**7.9**	**2.4**	0.08	ND <0.05	ND <0.05	0.22	**0.41**	-	ND <13	ND <28	-	ND <0.05	ND <0.05
Acetophenone	NE	NE	NE	ND <5.0	ND <4.7	ND <5.0	ND <4.7	-	ND <5.0	ND <4.7	-	5.4	ND <10	ND <4.7	ND <4.9	ND <4.7	ND <5.0	ND <4.9	ND <4.7	-	ND <47	ND <100	-	ND <5.0	ND <4.7
Anthracene	1100000	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	7.4	6.4	0.57	0.06	ND <0.05	ND <0.05	0.1	0.13	-	ND <47	ND <100	-	ND <0.05	ND <0.05
Benz(a)anthracene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	**0.49**	**0.34**	0.19	0.07	ND <0.05	ND <0.05	**0.41**	**0.44**	-	ND <16	ND <34	-	ND <0.05	0.08
Benzo(a)pyrene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	**0.36**	0.27	0.22	ND <0.05	ND <0.05	ND <0.05	**0.86**	**1.1**	-	ND <15	ND <33	-	ND <0.05	0.07
Benzo(b)fluoranthene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	0.19	0.13	0.11	ND <0.05	ND <0.05	ND <0.05	**0.57**	**0.72**	-	ND <16	ND <34	-	ND <0.05	0.05
Benzo(g,h,i)perylene	*150*	NE	NE	ND <0.50	ND <0.19	ND <0.50	ND <0.19	-	ND <0.50	ND <0.19	-	ND <0.50	ND <0.50	ND <0.19	ND <0.20	ND <0.19	ND <0.20	0.74	1.1	-	ND <15	ND <32	-	ND <0.50	ND <0.19
Benzo(k)fluoranthene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	0.19	0.16	0.13	ND <0.05	ND <0.05	ND <0.05	**0.56**	**0.72**	-	ND <16	ND <33	-	ND <0.05	0.05
bis(2-Ethylhexyl)phthalate	59	NE	NE	ND <0.50	ND <0.47	ND <0.50	ND <0.47	-	ND <0.50	ND <0.47	-	ND <0.50	ND <0.50	ND <0.47	ND <0.49	ND <0.47	ND <0.50	ND <0.49	ND <0.47	-	ND <14	ND <29	-	ND <0.50	ND <0.47
Carbazole	*53*	NE	NE	ND <5.0	ND <4.7	ND <5.0	ND <4.7	-	ND <5.0	ND <4.7	-	ND <5.0	ND <10	ND <4.7	ND <4.9	ND <4.7	ND <5.0	ND <4.9	ND <4.7	-	50	ND <76	-	ND <5.0	ND <4.7
Chrysene	*0.54*	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	-	0.44	0.38	0.22	0.06	ND <0.05	ND <0.05	0.49	**0.55**	-	ND <16	ND <34	-	ND <0.05	0.08
Dibenz(a,h)anthracene	*0.3*	NE	NE	ND <0.01	ND <0.01	ND <0.01	ND <0.01	-	ND <0.01	ND <0.01	-	0.03	0.02	0.03	ND <0.01	ND <0.01	ND <0.05	0.1	0.26	-	ND <15	ND <32	-	ND <0.01	ND <0.01
Dibenzofuran	*40*	*460*	*5800*	ND <5.0	ND <0.05	ND <5.0	ND <0.05	-	ND <5.0	0.05	-	ND <5.0	ND <10	0.87	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <47	ND <29	-	ND <5.0	ND <0.05
Diethylphthalate	*2200*	NE	NE	ND <5.0	ND <4.7	ND <5.0	ND <4.7	-	ND <5.0	ND <4.7	-	ND <5.0	ND <10	ND <4.7	ND <4.9	ND <4.7	ND <5.0	ND <4.9	ND <4.7	-	ND <47	ND <100	-	ND <5.0	ND <4.7
Fluoranthene	3700	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	0.08	0.13	-	3.1	2.5	0.41	0.34	ND <0.05	ND <0.05	0.38	0.39	-	ND <47	ND <100	-	ND <0.05	0.07
Fluorene	140000	NE	NE	ND <0.10	ND <0.09	ND <0.10	ND <0.09	-	0.7	0.53	-	17	15	3.6	0.24	ND <0.09	ND <0.10	ND <0.10	ND <0.09	-	ND <47	ND <100	-	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	ND <0.05	-	ND <0.05	ND <0.05	-	0.13	0.07	0.11	ND <0.05	ND <0.05	ND <0.05	***0.64***	***0.78***	-	ND <16	ND <33	-	ND <0.05	ND <0.05
Naphthalene	*210*	NE	NE	ND <0.10	ND <0.09	0.19	ND <0.09	-	0.1	ND <0.09	-	87	88	130	ND <0.10	ND <0.09	ND <0.10	ND <0.10	ND <0.09	-	***1200***	***1300***	-	0.23	ND <0.09
Nitrobenzene	*2300*	*51*	*750*	ND <0.10	ND <0.09	ND <0.10	ND <0.09	-	ND <0.10	ND <0.09	-	ND <0.10	3.4	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.10	ND <0.09	-	ND <16	ND <100	-	ND <0.10	ND <0.09
Phenanthrene	*14*	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	ND <0.05	0.06	-	***25***	***23***	1.8	0.09	ND <0.05	ND <0.05	0.09	0.09	-	ND <47	***38***	-	ND <0.05	ND <0.05
Phenol	9.20E+07	NE	NE	ND <1.0	ND <0.94	ND <1.0	ND <0.94	-	ND <1.0	ND <0.94	-	ND <1.0	ND <2.0	ND <0.94	ND <0.99	ND <0.94	ND <1.0	ND <0.98	ND <0.94	-	ND <47	ND <100	-	ND <1.0	ND <0.94
Pyrene	110000	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-	0.24	0.24	-	4.1	3.4	0.67	0.49	ND <0.05	ND <0.05	0.76	0.93	-	ND <47	ND <100	-	ND <0.05	0.13

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
Italics Criteria - Additional Polluting Substance and Alternative Criteria (APS) approved by CTDEEP for use with permission on a site-by-site basis.

[1]- Xylene criteria apply to Total Xylenes
^ - 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
Bolded, boxed, and Italics - Concentration exceeds APS RSR value

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

Sample ID	CTDEEP RSR			MW-10M^				MW-10BR^			MW-11S		MW-11D		MW-12S		MW-12D		MW-13S	MW-13D	MW-14S		
Sample Date				11/21/2016	12/7/2016	5/24/2018	5/24/2018	11/9/2017	5/30/2018	10/24/2018	11/22/2016	5/22/2018	11/22/2016	5/22/2018	11/22/2016	5/22/2018	11/22/2016	5/22/2018	10/24/2018	10/24/2018	11/9/2017	5/24/2018	11/12/2018
Lab Sample ID				BV89153	BX00269	CA59000	CA59004	BZ39263	CA61342	CB82838	BV89923	CA51714	BV89925	CA51715	BV89924	CA51716	BV89926	CA51717	CB82842	CB82848	BZ39267	CA59002	CB96387
Duplicate Sample	SWPC	RES VC	I/C VC				MW-Dup 2																
CT ETPH (ug/L)																							
CT ETPH	*250*	*250*	*250*	***620***	-	ND <66	ND <66	78	***340***	90	ND <70	ND <66	ND <70	ND <66	ND <70	ND <66	ND <70	ND <66	ND <72	ND <69	ND <66	ND <66	ND <66
Cyanide (ug/L)																							
Total Cyanide	52	NA	NA	ND <10	-	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	ND <10	14	14
Metals (ug/L)																							
Antimony	86000	NA	NA	ND <5	-	ND <5	ND <5	ND <5	ND <50	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	ND <5
Arsenic	4	NA	NA	ND <4	-	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4
Barium	*2200*	NA	NA	50	-	110	111	144	88	160	44	42	78	61	41	37	78	176	261	217	243	215	283
Total Chromium	NE	NA	NA	ND <1	-	3	3	144	66	1	ND <1	ND <1	ND <1	1	ND <1	ND <1	ND <1	4	104	53	144	13	14
Copper	48	NA	NA	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	ND <5	5	ND <5	6	ND <5	ND <5
Lead	13	NA	NA	ND <2	-	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2
Mercury	0.4	NA	NA	ND <0.2000	-	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000
Nickel	880	NA	NA	ND <1	-	13	14	1	ND <1	ND <1	ND <1	ND <1	ND <1	1	ND <1	ND <1	ND <1	2	159	173	729	497	244
Silver				ND<1	-	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Vanadium	*270*	NA	NA	ND <2	-	ND <2	ND <2	10	5	ND <2	ND <2	ND <2	ND <2	3	ND <2	ND <2	ND <2	3	ND <2	ND <2	ND <2	ND <2	2
Zinc	123	NA	NA	ND <2	-	10	10	42	3	ND <4	ND <2	4	2	5	ND <2	ND <2	ND <2	3	5	5	13	54	18
VOCs (ug/L)																							
1,1,1-Trichloroethane	62000	20400	50000	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
1,2,4-Trimethylbenzene	*150*	*940*	*12800*	14	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
1,3,5-Trimethylbenzene	*260*	*730*	*10000*	4.3	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
4-Isopropyltoluene (cymene)	*200*	*870*	*2100*	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Benzene	710	215	530	1.2	-	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	ND <0.70	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 <0.56	-	ND <0.50	ND <0.50	0.88	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	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
Carbon disulfide	*150*	*2100*	*5200*	ND <10	-	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	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
Chloroform	14100	287	710	ND <2.0	-	ND <1.0	ND <1.0	15	12	3.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Dibromochloromethane	1020	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	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	ND <0.50
Ethylbenzene	580000	50000	50000	55	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Isopropylbenzene (cumene)	*210*	*900*	*2200*	3.2	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
m,p-Xylene	NE	NE	NE	40	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Methyl tert butyl ether	*10000*	50000	50000	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Methylene chloride	48000	50000	50000	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Naphthalene	*210*	NE	NE	***320***	-	2.2	1.7	2	1.6	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
n-Propylbenzene	*10000*	*1200*	*2900*	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
o-Xylene	NE	NE	NE	19	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Styrene	*320*	580	2065	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Tetrachloroethene	88	1500	3820	ND <2.0	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Toluene	4000000	23500	50000	22	-	1.4	ND <1.0	ND <1.0	1.2	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
Total Xylenes	*270*	21300	50000	59	-	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	ND <1.0	ND <1.0	ND <1.0	ND <1.0
SVOCs (ug/L)																							
2,4-Dimethylphenol	*150*	NE	NE	-	ND <5.0	ND <0.94	ND <0.94	ND <0.94	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.1	ND <0.96	ND <0.94	ND <0.94	-
2-Methylnaphthalene	*62*	*1000*	*13100*	-	ND <25	ND <0.94	ND <0.94	ND <0.94	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.1	ND <0.96	ND <0.94	ND <0.94	ND <0.10
2-Methylphenol	*670*	NE	NE	-	ND <5.0	ND <0.94	ND <0.94	ND <0.94	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.1	ND <0.96	ND <0.94	ND <0.94	-
Acenaphthene	*150*	*30500*	*50000*	-	12	ND <0.05	ND <0.05	0.09	0.15	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 <0.10	ND <0.05	ND <0.05	0.1	ND <0.05
Acenaphthylene	0.3	NE	NE	-	**10**	0.1	0.06	0.26	**0.41**	0.07	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	ND <0.05	ND <0.05
Acetophenone	NE	NE	NE	-	ND <25	ND <4.7	ND <4.7	ND <4.7	ND <4.7	ND <5.3	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.3	ND <4.8	ND <4.7	ND <4.7	-
Anthracene	1100000	NE	NE	-	7.1	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	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05
Benz(a)anthracene	0.3	NE	NE	-	**0.6**	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	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05
Benzo(a)pyrene	0.3	NE	NE	-	0.08	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	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	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	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05
Benzo(g,h,i)perylene	*150*	NE	NE	-	ND <0.50	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.21	ND <0.50	ND <0.19	ND <0.50	ND <0.19	ND <0.50	ND <0.19	ND <0.50	ND <0.19	ND <0.21	ND <0.19	ND <0.19	ND <0.19	ND <0.05
Benzo(k)fluoranthene	0.3	NE	NE	-	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	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 <0.50	ND <0.47	ND <0.47	ND <0.47	ND <0.47	ND <0.53	ND <0.50	ND <0.47	ND <0.50	ND <0.47	ND <0.50	ND <0.47	ND <0.50	ND <0.47	0.64	ND <0.48	ND <0.47	ND <0.47	-
Carbazole	*53*	NE	NE	-	ND <19	ND <4.7	ND <4.7	ND <4.7	ND <4.7	ND <5.0	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.8	ND <4.7	ND <4.7	-
Chrysene	*0.54*	NE	NE	-	0.44	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	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
Dibenz(a,h)anthracene	*0.3*	NE	NE	-	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.05	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.05	ND <0.05	ND <0.01	ND <0.01	ND <0.05
Dibenzofuran	*40*	*460*	*5800*	-	ND <25	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <5.0	ND <0.05	ND <5.0	ND <0.05	ND <5.0	ND <0.05	ND <5.0	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	-
Diethylphthalate	*2200*	NE	NE	-	ND <25	ND <4.7	ND <4.7	ND <4.7	ND <4.7	ND <5.3	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.0	ND <4.7	ND <5.3	ND <4.8	ND <4.7	ND <4.7	-
Fluoranthene	3700	NE	NE	-	8	0.26	ND <0.05	0.09	0.1	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	ND <0.05	ND <0.05	ND <0.05
Fluorene	140000	NE	NE	-	8.7	ND <0.09	ND <0.09	0.14	0.16	ND <0.11	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.11	ND <0.10	ND <0.09	ND <0.09	ND <0.05
Indeno(1,2,3-cd)pyrene	*0.54*	NE	NE	-	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	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	-	190	ND <0.09	ND <0.09	1.1	1.3	0.31	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.20	0.82	ND <0.09	0.57	ND <0.10
Nitrobenzene	*2300*	*51*	*750*	-	ND <0.10	ND <0.09	ND <0.09	ND <0.09	ND <0.09	ND <0.11	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.11	ND <0.10	ND <0.09	ND <0.09	-
Phenanthrene	*14*	NE	NE	-	***19***	ND <0.05	ND <0.05	0.32	0.33	0.12	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	ND <0.05	ND <0.05
Phenol	9.20E+07	NE	NE	-	ND <5.0	ND <0.94	ND <0.94	ND <0.94	ND <0.94	ND <1.1	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.0	ND <0.94	ND <1.1	ND <0.96	ND <0.94	ND <0.94	-
Pyrene	110000	NE	NE	-	9.8	0.25	ND <0.05	0.11	0.15	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05

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
Italics Criteria - Additional Polluting Substance and Alternative Criteria (APS) approved by CTDEEP for use with permission on a site-by-site basis.

[1]- Xylene criteria apply to Total Xylenes
^ - 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
Bolded, boxed, and Italics - Concentration exceeds APS RSR value

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

Sample ID	CTDEEP RSR			MW-14D^			MW-16S		MW-17S		MW-18D^				MW-19S			MW-21S		MW-23S		MW-25S	MW-26S
Sample Date				11/9/2017	5/24/2018	11/12/2018	11/10/2017	5/22/2018	11/10/2017	5/16/2018	11/9/2017	5/30/2018	10/24/2018	10/24/2018	11/9/2017	11/9/2017	5/24/2018	11/9/2017	5/24/2018	11/9/2017	5/30/2018	10/24/2018	10/24/2018
Lab Sample ID				BZ39268	CA59001	CB96386	BZ39896	CA51718	BZ39895	CA48712	BZ39262	CA61340	CB82841	CB82850	BZ39266	BZ39270	CA58998	BZ39269	CA58999	BZ39265	CA61341	CB82837	CB82843
Duplicate Sample														MW-Dup		MW-Dup							
	SWPC	RES VC	I/C VC																				
CT ETPH (ug/L)																							
CT ETPH	*250*	*250*	*250*	ND <66	160	**320**	ND <67	ND <66	ND <67	70	***530***	***890***	***2800***	***3200***	ND <69	ND <67	ND <67	ND <68	ND <66	ND <66	ND <67	ND <68	ND <71
Cyanide (ug/L)																							
Total Cyanide	52	NA	NA	ND <10	**69**	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	ND <10	14	ND <10
Metals (ug/L)																							
Antimony	86000	NA	NA	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <50	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	14	ND <50	ND <5	ND <5
Arsenic	4	NA	NA	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4	ND <4
Barium	*2200*	NA	NA	168	12	209	23	20	31	16	82	111	198	204	74	74	69	216	223	91	172	112	197
Total Chromium	NE	NA	NA	364	37	9	2	ND <1	ND <1	ND <1	26	2	ND <1	ND <1	3	ND <1	ND <1	2	ND <1	13	20	ND <1	ND <1
Copper	48	NA	NA	13	16	ND <5	ND <5	ND <5	ND <5	ND <5	7	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	ND <5	6	ND <5	ND <5
Lead	13	NA	NA	4	ND <2	ND <2	ND <2	ND <2	2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2
Mercury	0.4	NA	NA	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000
Nickel	880	NA	NA	84	60	138	ND <1	ND <1	ND <1	ND <1	3	ND <1	ND <1	1	ND <1	ND <1	2	ND <1	ND <1	2	6	ND <1	3
Silver				ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Vanadium	*270*	NA	NA	4	ND <2	3	ND <2	ND <2	ND <2	ND <2	7	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	ND <2	6	11	ND <2	ND <2
Zinc	123	NA	NA	16	14	7	ND <2	ND <2	ND <2	ND <2	10	3	ND <4	ND <4	ND <2	ND <2	ND <2	3	ND <2	10	37	ND <4	ND <4
VOCs (ug/L)																							
1,1,1-Trichloroethane	62000	20400	50000	1.1	ND <1.0	1.2	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <2.0	ND <10	ND <20	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	3.1	5.2	ND <1.0	ND <1.0	ND <1.0	ND <1.0	8.4	16	98	120	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
1,3,5-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	3.1	5.9	29	36	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
4-Isopropyltoluene (cymene)	*200*	*870*	*2100*	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 <2.0	ND <10	ND <20	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
Benzene	710	215	530	2.5	53	40	ND <0.70	ND <0.70	ND <0.70	ND <0.70	1.8	190	680	**890**	ND <0.70	ND <0.70	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	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	***3***	ND <1.0	ND <2.5	ND <5.0	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
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	33	ND <10	ND <40	ND <40	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
Chloroform	14100	287	710	ND <1.0	ND <1.0	ND <1.0	ND <1.0	2.9	ND <1.0	ND <1.0	18	6.1	ND <6.0	ND <6.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	3.5	ND <1.0	ND <1.0	ND <1.0
Dibromochloromethane	1020	NE	NE	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	0.58	ND <1.0	ND <2.5	ND <5.0	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
Ethylbenzene	580000	50000	50000	1.1	21	3.2	ND <1.0	ND <1.0	ND <1.0	ND <1.0	22	84	430	860	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
Isopropylbenzene (cumene)	*210*	*900*	*2200*	ND <1.0	1.6	3.4	ND <1.0	ND <1.0	ND <1.0	ND <1.0	2	3.8	26	36	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
m,p-Xylene	NE	NE	NE	ND <1.0	6.5	4.8	ND <1.0	ND <1.0	ND <1.0	ND <1.0	16	48	360	650	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
Methyl tert butyl ether	*10000*	50000	50000	1.1	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <2.0	ND <10	ND <20	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	48000	50000	50000	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 <2.0	ND <10	ND <20	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
Naphthalene	*210*	NE	NE	5	97	150	ND <1.0	ND <1.0	ND <1.0	ND <1.0	44	***290***	***2900***	***3400***	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
n-Propylbenzene	*10000*	*1200*	*2900*	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 <2.0	ND <10	ND <20	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
o-Xylene	NE	NE	NE	ND <1.0	11	14	ND <1.0	ND <1.0	ND <1.0	ND <1.0	11	57	270	420	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
Styrene	*320*	580	2065	ND <1.0	2	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <2.0	ND <10	ND <20	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
Tetrachloroethene	88	1500	3820	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	6.4	5.2	ND <1.0	ND <2.0	ND <5.0	ND <5.0	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
Toluene	4000000	23500	50000	ND <1.0	33	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	3.7	250	880	1300	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
Total Xylenes	*270*	21300	50000	ND <1.0	17.5	18.8	ND <1.0	ND <1.0	ND <1.0	ND <1.0	27	105	***630***	***1070***	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
SVOCs (ug/L)																							
2,4-Dimethylphenol	*150*	NE	NE	ND <0.94	ND <0.94	-	ND <0.96	ND <0.94	ND <0.97	ND <0.94	ND <0.97	ND <1.9	ND <4.9	ND <5.0	ND <0.98	ND <0.98	ND <0.94	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <0.96	ND <1.0
2-Methylnaphthalene	*62*	*1000*	*13100*	ND <0.94	1.5	5	ND <0.96	ND <0.94	ND <0.97	ND <0.94	28	7	***130***	***230***	ND <0.98	ND <0.98	ND <0.94	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <0.96	ND <1.0
2-Methylphenol	*670*	NE	NE	ND <0.94	ND <0.94	-	ND <0.96	ND <0.94	ND <0.97	ND <0.94	ND <0.97	2.2	ND <4.9	ND <5.0	ND <0.98	ND <0.98	ND <0.94	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <0.96	ND <1.0
Acenaphthene	*150*	*30500*	*50000*	0.39	1.6	7.7	ND <0.05	ND <0.05	ND <0.05	ND <0.05	8.4	14	75	ND <150	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.23	ND <0.05
Acenaphthylene	0.3	NE	NE	ND <0.05	0.09	**0.42**	ND <0.05	ND <0.05	ND <0.05	ND <0.05	***21***	***4.2***	***21***	***20***	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.13	ND <0.05
Acetophenone	NE	NE	NE	ND <4.7	ND <4.7	-	ND <4.8	ND <4.7	ND <4.9	ND <4.7	ND <4.8	ND <9.6	ND <4.9	ND <9.9	ND <4.9	ND <4.9	ND <4.7	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <4.8	ND <5.0
Anthracene	1100000	NE	NE	ND <0.05	ND <0.05	0.33	ND <0.05	ND <0.05	ND <0.05	ND <0.05	1.7	0.7	5.5	5.8	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.08	ND <0.05
Benz(a)anthracene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.06	0.06	ND <0.98	ND <0.99	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(a)pyrene	0.3	NE	NE	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 <0.98	ND <0.99	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	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	ND <0.98	ND <0.99	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(g,h,i)perylene	*150*	NE	NE	ND <0.19	ND <0.19	ND <0.05	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.98	ND <0.99	ND <0.20	ND <0.20	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.19	ND <0.20
Benzo(k)fluoranthene	0.3	NE	NE	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 <0.98	ND <0.99	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	0.47	ND <0.47	-	ND <0.48	ND <0.47	ND <0.49	ND <0.47	ND <0.48	ND <0.48	ND <2.0	ND <2.0	ND <0.49	ND <0.49	0.65	ND <0.47	ND <0.47	ND <0.48	ND <0.47	ND <0.48	ND <0.50
Carbazole	*53*	NE	NE	ND <4.7	ND <4.7	-	ND <4.8	ND <4.7	ND <4.9	ND <4.7	ND <4.8	ND <9.6	7	8	ND <4.9	ND <4.9	ND <4.7	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <4.8	ND <5.0
Chrysene	*0.54*	NE	NE	0.06	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.05	0.06	ND <0.98	ND <0.99	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
Dibenz(a,h)anthracene	*0.3*	NE	NE	0.01	ND <0.01	ND <0.05	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.98	ND <0.99	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.01	ND <0.05	ND <0.05
Dibenzofuran	*40*	*460*	*5800*	ND <0.05	ND <0.05	-	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.83	0.48	2.9	3.5	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.18	ND <0.05
Diethylphthalate	*2200*	NE	NE	ND <4.7	ND <4.7	-	ND <4.8	ND <4.7	ND <4.9	ND <4.7	ND <4.8	ND <9.6	ND <4.9	ND <5.0	ND <4.9	ND <4.9	ND <4.7	ND <4.7	ND <4.7	ND <4.8	ND <4.7	ND <4.8	5.4
Fluoranthene	3700	NE	NE	0.13	ND <0.05	0.2	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.82	1.1	ND <4.9	ND <5.0	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
Fluorene	140000	NE	NE	ND <0.09	0.29	2.2	ND <0.10	ND <0.09	ND <0.10	ND <0.09	7	3	22	25	ND <0.10	ND <0.10	ND <0.09	ND <0.09	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.10
Indeno(1,2,3-cd)pyrene	*0.54*	NE	NE	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 <0.98	ND <0.99	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 <0.09	18	92	ND <0.10	ND <0.09	ND <0.10	ND <0.09	130	180	***1900***	***3300***	ND <0.10	ND <0.10	0.14	ND <0.09	0.4	ND <0.10	ND <0.09	ND <0.10	ND <0.10
Nitrobenzene	*2300*	*51*	*750*	ND <0.09	ND <0.09	-	ND <0.10	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.10	ND <4.9	ND <5.0	ND <0.10	ND <0.10	ND <0.09	ND <0.09	ND <0.09	ND <0.10	ND <0.09	ND <0.10	ND <0.10
Phenanthrene	*14*	NE	NE	0.11	0.11	1.2	ND <0.05	ND <0.05	ND <0.05	ND <0.05	5.4	3	***28***	***30***	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
Phenol	9.20E+07	NE	NE	ND <0.94	ND <0.94	-	ND <0.96	ND <0.94	ND <0.97	ND <0.94	ND <0.97	5	ND <4.9	ND <5.0	ND <0.98	ND <0.98	ND <0.94	ND <0.94	ND <0.94	ND <0.95	ND <0.94	ND <0.96	ND <1.0
Pyrene	110000	NE	NE	0.15	ND <0.05	0.25	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.96	1.5	ND <4.9	ND <5.0	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

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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
Italics Criteria - Additional Polluting Substance and Alternative Criteria (APS) approved by CTDEEP for use with permission on a site-by-site basis.

[1]- Xylene criteria apply to Total Xylenes
^ - 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
Bolded, boxed, and Italics - Concentration exceeds APS RSR value

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

Sample ID	CTDEEP RSR			MW-26D			MW-26BR^	MW-27S	MW-28S	MW-30S		
Sample Date				10/24/2018	11/12/2018	11/12/2018	10/24/2018	10/24/2018	10/24/2018	10/24/2018	11/12/2018	11/12/2018
Lab Sample ID				CB82845	CB96388	CB96389	CB82847	CB82846	CB82844	CB82839	CB96390	CB96391
Duplicate Sample	SWPC	RES VC	I/C VC			**DISSOLVED**						**DISSOLVED**
CT ETPH (ug/L)												
CT ETPH	*250*	*250*	*250*	ND <69	-	-	ND <67	69	ND <66	***550***	***640***	***500***
Cyanide (ug/L)												
Total Cyanide	52	NA	NA	ND <10	-	-	ND <10	ND <10	ND <10	ND <10	-	-
Metals (ug/L)												
Antimony	86000	NA	NA	ND <5	-	-	ND <5	ND <5	ND <5	ND <5	-	-
Arsenic	4	NA	NA	ND <4	-	-	ND <4	ND <4	ND <4	ND <4	-	-
Barium	*2200*	NA	NA	52	-	-	100	268	227	47	-	-
Total Chromium	NE	NA	NA	4	-	-	2	2	ND <1	ND <1	-	-
Copper	48	NA	NA	ND <5	-	-	ND <5	ND <5	ND <5	ND <5	-	-
Lead	13	NA	NA	ND <2	-	-	ND <2	ND <2	ND <2	ND <2	-	-
Mercury	0.4	NA	NA	ND <0.2000	-	-	ND <0.2000	ND <0.2000	ND <0.2000	ND <0.2000	-	-
Nickel	880	NA	NA	ND <1	-	-	ND <1	2	2	ND <1	-	-
Silver				ND<1	-	-	ND<1	ND<1	ND<1	ND<1	-	-
Vanadium	*270*	NA	NA	3	-	-	ND <2	ND <2	ND <2	ND <2	-	-
Zinc	123	NA	NA	ND <4	-	-	ND <4	6	ND <4	31	-	-
VOCs (ug/L)												
1,1,1-Trichloroethane	62000	20400	50000	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	13	-	-
1,3,5-Trimethylbenzene	*260*	*730*	*10000*	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
4-Isopropyltoluene (cymene)	*200*	*870*	*2100*	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	-	-
Bromodichloromethane	*510*	*1.1*	*35*	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	-	-
Chloroform	14100	287	710	1.3	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Dibromochloromethane	1020	NE	NE	ND <0.50	-	-	ND <0.50	ND <0.50	ND <0.50	ND <0.50	-	-
Ethylbenzene	580000	50000	50000	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	2.3	-	-
Isopropylbenzene (cumene)	*210*	*900*	*2200*	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	1.3	-	-
m,p-Xylene	NE	NE	NE	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	4.4	-	-
Methyl tert butyl ether	*10000*	50000	50000	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Methylene chloride	48000	50000	50000	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Naphthalene	*210*	NE	NE	1.3	-	-	ND <1.0	ND <1.0	ND <1.0	180	-	-
n-Propylbenzene	*10000*	*1200*	*2900*	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
o-Xylene	NE	NE	NE	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	9.7	-	-
Styrene	*320*	580	2065	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Tetrachloroethene	88	1500	3820	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Toluene	4000000	23500	50000	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	ND <1.0	-	-
Total Xylenes	*270*	21300	50000	ND <1.0	-	-	ND <1.0	ND <1.0	ND <1.0	14.1	-	-
SVOCs (ug/L)												
2,4-Dimethylphenol	*150*	NE	NE	ND <0.99	-	-	ND <0.96	ND <0.98	ND <0.94	ND <0.99	-	-
2-Methylnaphthalene	*62*	*1000*	*13100*	ND <0.99	ND <0.09	ND <0.09	ND <0.96	ND <0.98	ND <0.94	1.5	1	0.45
2-Methylphenol	*670*	NE	NE	ND <0.99	-	-	ND <0.96	ND <0.98	ND <0.94	ND <0.99	-	-
Acenaphthene	*150*	*30500*	*50000*	0.2	0.39	ND <0.09	ND <0.05	ND <0.05	ND <0.05	5.6	3.3	2.4
Acenaphthylene	0.3	NE	NE	**0.55**	**1.2**	ND <0.19	ND <0.05	ND <0.05	ND <0.05	**3.2**	**0.74**	**1.7**
Acetophenone	NE	NE	NE	ND <5.0	-	-	ND <4.8	ND <4.9	ND <4.7	ND <5.0	-	-
Anthracene	1100000	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	1.5	0.96	0.52
Benz(a)anthracene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.13	0.08	ND <0.05
Benzo(a)pyrene	0.3	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.07	ND <0.05	ND <0.05
Benzo(b)fluoranthene	0.3	NE	NE	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(g,h,i)perylene	*150*	NE	NE	ND <0.20	ND <0.05	ND <0.05	ND <0.19	ND <0.20	ND <0.19	ND <0.20	ND <0.05	ND <0.05
Benzo(k)fluoranthene	0.3	NE	NE	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 <0.50	-	-	ND <0.48	ND <0.49	ND <0.47	ND <0.50	-	-
Carbazole	*53*	NE	NE	ND <5.0	-	-	ND <4.8	ND <4.9	ND <4.7	ND <5.0	-	-
Chrysene	*0.54*	NE	NE	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.15	0.1	ND <0.05
Dibenz(a,h)anthracene	*0.3*	NE	NE	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
Dibenzofuran	*40*	*460*	*5800*	ND <0.05	-	-	ND <0.05	ND <0.05	ND <0.05	0.39	-	-
Diethylphthalate	*2200*	NE	NE	ND <5.0	-	-	ND <4.8	ND <4.9	ND <4.7	ND <5.0	-	-
Fluoranthene	3700	NE	NE	0.08	ND <0.28	ND <0.05	ND <0.05	ND <0.05	ND <0.05	0.99	0.67	0.27
Fluorene	140000	NE	NE	0.36	0.81	ND <0.11	ND <0.10	ND <0.10	ND <0.09	3.7	3.2	1.1
Indeno(1,2,3-cd)pyrene	*0.54*	NE	NE	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	1.1	0.24	ND <0.09	0.1	0.15	0.1	110	70	49
Nitrobenzene	*2300*	*51*	*750*	ND <0.10	-	-	ND <0.10	ND <0.10	ND <0.09	ND <0.10	-	-
Phenanthrene	*14*	NE	NE	0.25	0.28	ND <0.05	ND <0.05	ND <0.05	ND <0.05	1.2	0.84	0.37
Phenol	9.20E+07	NE	NE	ND <0.99	-	-	ND <0.96	ND <0.98	ND <0.94	ND <0.99	-	-
Pyrene	110000	NE	NE	0.1	ND <0.28	ND <0.05	ND <0.05	ND <0.05	ND <0.05	1.4	0.52	0.39

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
Italics Criteria - Additional Polluting Substance and Alternative Criteria (APS) approved by CTDEEP for use with permission on a site-by-site basis.

[1]- Xylene criteria apply to Total Xylenes
^ - 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
Bolded, boxed, and Italics - Concentration exceeds APS RSR value

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)							
Toluene	ND <4.8	ND <6.5	ND <7.0	ND <5.4	ND <6.4	ND <6.1	ND <5.8
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
- Compound Not Analyzed
Only compounds detected are summarized in the table (compounds that are not listed were not detected)

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

Sample ID	**SED-06A**	**SED-06B**	**SED-06C**	**SED-07**	**SED-DUP-1**	**SED-08**	**SED-09**
Laboratory ID	CB20637	CB20638	CB20639	CB20634	CB20640	CB20635	CB20636
Sample Date	8/28/2018	8/28/2018	8/28/2018	8/28/2018	8/28/2018	8/28/2018	8/28/2018
Duplicate							
CT ETPH (mg/Kg)	-	-	-	91	79	100	630
Total Organic Carbon (mg/Kg)	-	-	-	-	-	-	-
VOCs (mg/Kg)							
Toluene	-	-	-	ND <6.2	ND <6.6	ND <6.1	240
SVOCs (mg/Kg)							
2-Methylnaphthalene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Acenaphthene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Acenaphthylene	-	-	-	ND<0.28	ND<0.29	0.33	ND<1.5
Anthracene	-	-	-	ND<0.28	ND<0.29	0.6	ND<1.5
Benz(a)anthracene	-	-	-	0.7	0.71	2.4	ND<1.5
Benzo(a)pyrene	-	-	-	0.77	0.84	2.4	1.9
Benzo(b)fluoranthene	-	-	-	1.2	1.4	4.1	3.7
Benzo(g,h,i)perylene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Benzo(k)fluoranthene	-	-	-	0.42	0.53	1.4	ND<1.5
Carbazole	-	-	-	ND<0.40	ND<0.41	ND<0.44	ND<2.2
Chrysene	-	-	-	0.79	0.84	2.6	2.2
Dibenz(a,h)anthracene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Dibenzofuran	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Fluoranthene	-	-	-	1.6	1.7	5.2	3.6
Fluorene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Indeno(1,2,3-cd)pyrene	-	-	-	ND<0.28	ND<0.29	0.44	ND<1.5
Naphthalene	-	-	-	ND<0.28	ND<0.29	ND<0.3	ND<1.5
Phenanthrene	-	-	-	1.2	0.96	2.8	ND<1.5
Pyrene	-	-	-	1.5	1.6	4.3	3.2
PCBs (mg/Kg)	-	-	-	ND<0.40	ND<0.41	ND<0.43	ND<0.43
Total Cyanide (mg/Kg)	-	-	-	-	-	-	-
Metals (mg/Kg)							
Arsenic	-	-	-	ND <0.73	ND <0.77	ND <0.85	7.3
Barium	-	-	-	30.3	27.5	23.7	324
Cadmium	-	-	-	ND <0.36	ND <0.39	ND <0.43	2.9
Chromium	-	-	-	7.1	7.83	6.61	66.4
Copper	22.1	28.9	83.7	13.2	9.5	10	149
Lead	-	-	-	43.7	33.1	22.2	267
Mercury	-	-	-	ND <0.03	ND <0.03	ND <0.03	0.21
Nickel	-	-	-	7.6	5.25	6.37	41.6
Vanadium	-	-	-	16	16.6	15.2	109
Zinc	-	-	-	57.9	60.8	45.5	606

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
- Compound Not Analyzed
Only compounds detected are summarized in the table (compounds that are not listed were not detected)

TABLE 5
Areas Of Concern (AOCs)/ Site Conceptual (CSM) Summary
Eversource Former Rockville MGP
13 Maple Street
Rockville, CT

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-34 TB-47	SB-07 SB-43 SB-44 SB-46 SB-47 SB-48	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.	ETPH above RES and I/C DEC and GB PMC in SB-07, and SB-47 ETPH above RES DEC in SB-43 and SB-46 PAHs above RES and I/C DEC and GB PMC in SB-07, SB-43, SB-46, and SB-47 Fill observed (ash, brick, coal) in SB-07 Staining with petroleum odors (10-11.5 ft.) Coal tar impacts in SB-07 (16 to 25ft, 33-33.5ft., 39-40 ft.) Coal tar impacts in SB-43 and SB-47 11-15ft Coal tar impacts in SB-44 12-15ft and 24.5-26ft Coal tar impacts in SB-46 10-37ft	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	**Shallow:** MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC APS. **Deep:** 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 (2016-2018)	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 SB-08	TP-01 TP-02 TP-03 SB-31 SB-52	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.	ETPH and PAHs above RES and I/C DEC and GB PMC in SB-31 and SB-52 DEC does not apply due to samples greater than 15'. 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 in all but SB-31. Fill observed (bricks, metal pieces, metal conduit, cast iron pipe, ash) Coal tar impacts in SB-31 and SB-52 15-31ft	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC	**Shallow:** MW-9S: ETPH, VOCs (1,2,4-trimethylbenzene and naphthalene), PAHs, cyanide above SWPC. ETPH detected above Res VC APS. **Deep:** 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 (2016-2018)	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 CSS-4	SB-04 SB-05 SB-06 SB-29 SB-30 SB-31 TP-04 TP-05	MW-10S MW-10M MW-10D	MW-9S MW-9D MW-10S MW-10M MW-10D MW-10BR MW-10SR	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 above RES DEC in SB-29 and SB-30. ETPH and VOCs above RES & I/C DEC and/or GB PMC in SB-05, SB-06, SB-31, and TP-05. DEC does not apply to SB-05 due to sample depth greater than 15'. PAHs above RES and I/C DEC and/or GB PMC in SB-29, SB-30, and SB-31 Fill observed (ash, slag, and/or metal) in SB-06, SB-29, SB-30, SB-31, 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. and SB-31 from 11 to 31 ft and 47 to 49 ft	MW-9S: VOCs (xylenes), PAHs, metals, cyanide above SWPC MW-9D: PAHs and metals above SWPC 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	**Shallow:** MW-10SR: Not sampled due to visual observations of tar globules/ staining during development **Deep:** MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC MW-10D: Not sampled due to visual observations of tar globules/ staining during development **Bedrock:** 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 (2016-2018)	Remedial evaluation pending the completion of the Phase III investigation.
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 TB-42	SB-02 SB-03 SB-04 SB-05 SB-28 SB-29 TP-05 TP-06	MW-10S MW-10M MW-10D	MW-10S MW-10S2 MW-10M MW-10D MW-10BR MW-24S	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. PAHs above RES and I/C DEC and/or GB PMC in SB-28 and SB-29. Arsenic above RES and I/C DEC and benzene above GB PMC in SB-28. ETPH above RES DEC in SB-29 Fill observed (ash, brick, coal) in SB-05, SB-28, and SB-29, 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. SB-28: 24-36.5 ft. TP-05.: 5.75 -6.0 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	**Shallow:** MW-10SR: Not sampled due to visual observations of tar globules/ staining during development **Deep:** MW-10M: ETPH, VOCs (naphthalene) detected and PAHs above SWPC MW-10D: Not sampled due to visual observations of tar globules/ staining during development **Bedrock:** 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 (2016-2018)	Remedial evaluation pending the completion of the Phase III investigation.

TABLE 5
Areas Of Concern (AOCs)/ Site Conceptual (CSM) Summary
Eversource Former Rockville MGP
13 Maple Street
Rockville, CT

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 No visual impacts in soils.	Groundwater investigations not completed in AOC.	**Shallow :** MW-7S: ETPH and PAHs detected above the SWPC. VOCs and metals detected. **Deep:** 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 (2016-2018)	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-
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 SEH Invest. HA-01 HA-02 HA-03 HA-04 HA-05 HA-06 HA-07 HA-08 HA-09	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	Phase III	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. Benzo (a) pyrene detected above the SEH Threshold Notification Concentration . PAHs, ETPH, and arsenic above the RES and I/C DEC and/or GB PMC in SS-103. Cyanide detected. PAHs above the RES and I/C DEC in HA-01 through HA-09. SEH Threshold Notification Concentration for benzo(a)pyrene delineated HA-01, HA-2 and HA-03 above the threshold. Fill observed (coal, ash) in shallow soils below the trap-rock gravel cover to 2 feet below grade.	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	Surface water (Hockanum River) upgradient of the AOC	Phase III Investigation (2018)	Delineation SEH soils for benzo (a) pyrene was completed in 2018. Remedial evaluation pending the completion of the Phase III investigation.
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 SB-44	Groundwater not investigated (within active transformer yard)	Groundwater not investigated (within active transformer yard)	Phase III	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. Fill, coal and brick, encountered to 5 feet below grade in SB-44. ETPH and cyanide detected. Visual Impacts (Appear to be associated with AOC -1) 12- 15 ft.: Petroleum odor and sheen 24.5-26: Faint coal tar odor	Groundwater investigations not completed in AOC.	Groundwater investigations not completed in AOC.	Surface water (Hockanum River) upgradient of the AOC	Phase III Investigation (2018)	Phase III ESA investigations are proposed to assess the nature and extent of fill within the Inner Substation Area (AOC-8 below) Remedial evaluation pending the completion of the Phase III
8	Current Substation	PCBs, ETPH, Metals,	Possible leaks or spills from transformers	Surface soils Subsurface Soils If significant release: groundwater	TB-34 TB-38 TB-39S TB-32 MW-8S	SS-100 to SS-106 HA-01 to HA-11 SB-43 SB-44	MW-8S	MW-2SR, MW-2D, MW-2BR, MW-5S, MW-5D, MW-8SR, MW-16S, MW-17S. MW-25S	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. HA-01 through HA-07, HA-08 and HA-09: SEH investigation (See AOC 6). PAHs above the RES and I/C DEC in HA-01 through HA-09. SEH Threshold Notification Concentration for benzo(a)pyrene delineated. Fill observed in top 2 feet of soils. HA-09A: ETPH exceeds RES DEC, arsenic exceeds the RES and I/C DEC. PAHs exceed RES DEC, I/C DEC and GB PMC. Cyanide dected. PCBs not detected. HA-10: ETPH and PAHs exceed RES DEC, I/C DEC and GB PMC. Cyanide detected below RES DEC and GB PMC. Arsenic exceeds the RES and I/C DEC HA-11: Arsenic exceeds the RES and I/C DEC. ETPH detected. Visual Impacts (Appear to be associated with AOC -1) 12- 15 ft.: Petroleum odor and sheen 24.5-26: Faint coal tar odor	MW-8S: Metals detected above the SWPC. Cyanide detected.	**Shallow**: MW-2SR: Not sampled due to visual observations of tar globules (2017). PAHs detected above SWPC. VOC (naphthalene detected). MW-5S: PAHs detected above SWPC. ETPH detected above the SWPC, RES VC and I/C VC. VOCs, and metals detected. MW-8SR: PAHs detected above the SWPC. Elevated metals detected. Possibly associated with turbidity in sample. MW-16S: Metals and VOC (Chloroform) detected . MW-17S: VOCs (tetrachloroethene)and ETPH detected below SWPC. Metals detected. **Deep**: MW-2D: Not sampled due to visual observations of tar globules. MW-5D: Metals and ETPH detected **Bedrock**: MW-2BR: PAHs detected below the SWPC. Metals detected.	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase II Investigation (1992) Phase III Investigation (2016-2018)	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

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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	On-site soils borings, SS-100 to SS-107, TP-01, to TP-07. HA-01 to HA -18 Historic fill was identified in multiple borings which overlap with other AOCs	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. Concentrations of COCs including PAHs, ETPH, and metals above RSR criteria. Concentrations of benzo (a) pyrene above SEH Threshold Notification Concentration for benzo(a)pyrene delineated in SS-102, HA-01A, HA-02 HA-03 and HA-18.	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 (2018)	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.
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 SED-07 SED-08 SED-09	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. SED-06A, B, C were collected in the vicinity of SED-06. Outfall Sediment samples were collected at SED-07, SED-08 and SED-09:VOC (toluene), ETPH, PAHs and metals were detected.	Not applicable.	Not applicable.	Metals (Barium chromium, zinc) below criteria. Concentrations detected at upstream sample location.	Phase II Investigation (1992) Phase III Investigation (2017-2018)	Investigation is completed.
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 TB-34 MW-5S MW-5D	SB-11 SB-36 SB-37 SB-38 SB-39 SB-40 SB-41 SB-42 SB-53 MW-16S MW-17S	MW-5S MW-5D	MW-5S MW-5D MW-16S MW17S MW-30S	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, SB-36, SB-39 ,SB-40, SB-40A to approximately 5 feet. SB-11: Sheen and coal tar odor observed from 5 to 8 feet. SB-36: Coal tar odor 12 to 20 feet. Sheen 15 to 20 feet. SB-38: sheen and coal tar odor 10 to 11 feet. SB-40: sheen and coal tar odor 8 to 15 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.	**Shallow:** MW-5S: ETPH and VOCs detected below SWPC. PAHs detected above SWPC. Metals detected. MW-16S: Metals and Chloroform (VOC) detected MW-17S: VOC (tetrachloroethene), ETPH detected below SWPC. Metals detected. **Deep:** MW-5D: Metals and ETPH detected	Surface water (Hockanum River) located adjacent but up gradient of location.	Phase II Investigation (1992) Phase III Investigation (2016- 2018)	Remedial evaluation pending the completion of the Phase III investigation.

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12	Creosote/ Coal Tar impacts and Fill Observed (Southeastern portion of Site)	VOCs (BTEX), SVOCs, Total Cyanide, ETPH	Historic placement of fill (AOC-13). 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-3 TB-24 TB-28 MW-6S MW-6D	SB-08 SB-09 SB-09A SB-10 SB-24 SB-32 SB-33 SB-48 SB-49 SB-50 SB-51 SS-107 SS-108 HA-17 HA-18	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 above the RES DEC and GB PMC in SB-24. ETPH detected above RES DEC in SB-09A. Concentrations of PAHs and ETPH were detected above the RES DEC, I/C DEC and/or the GB PMC in SB-32 and SB-51. Concentrations of arsenic were detected in above the RES DEC and I/C DEC. HA-17: ETPH and cyanides detected. PAHs detected above the RES DEC., I/C DEC and GB PMC. Lead above the GB PMC. HA-18: ETPH, PAHs above the RES DEC/ I/C DEC and GB PMC. Benzo (a) pyrene above the SEH Threshold Notification Concentration. SB-08: Staining and fuel oil odor 11 to 2 ft. Staining and coal tar odor from 24 to 29 ft. SB-10: Sheen and coal tar odor 9 to 24.5 ft. SB-33: coal tar odor 7 to 11 ft. Sheen, blebs and coal tar odor 11.5- 20 ft. SB-50: Coal tar from 11-12 ft. Sheens and coal tar blebs were observed from 15 to 17 feet. sheens and coal tar odors were observed from 17 feet to 25 feet SB-51: petroleum orders and grey staining from 14 to 17 feet. Sheen, coal tar blebs and/or coal tar odors were observed from 17 to 20 feet. Fill (brick, glass, slag, and/or ash) observed in SB-08, SB-09A and SB-24, SB-32, SB-33, SB-48, SB-49, SB-50, and SB-51.	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.	**Shallow:** MW-2SR: Not sampled due to visual observations of tar globules (2017). MW-6S: Naphthalene and metals detected below the SWPC. **Deep**: MW-6D: PAHs detected below SWPC. Metals detected. MW-2D: Not sampled due to visual observations of tar globules **Bedrock:** MW-2BR: PAHs detected below the SWPC. Metals detected.	Hockanum River located adjacent but up gradient of location.	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2016-2018)	Additional Phase III ESA investigations are proposed to further assess the nature and extent of fill in this area of the site. Delineation of benzo(a) pyrene in the vicinity of HA-18.
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 SB-54 SB-55 SB-56 SB-57	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, SB-54 and SB-55. Cyanide was detected in SB-54 and SB-55, Metals were detected in SB-54, SB-55, SB-56, and SB-57. SPLP metals were detected in SB-54 and SB-57. Fill (slag and/or ash) observed in SB-26, SB-27, SB-54, SB-55, SB-56, and SB-57.	MW-11S/ MW-11D MW-12S / 12D No analytical data	**Shallow:** MW-11S/ MW-12S: Metals detected **Deep:** MW-11D/ MW-12D: Metals and/or pyrene (PAH) detected	Hockanum River located adjacent and downgradient.	Phase II Investigation (1992) Human Health Risk Assessment (1994) Phase III Investigation (2017- 2018)	Remedial evaluation pending the completion of the Phase III investigation.
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 SB-45 SB-59 SB-60 (off-site) SB-64 (off-site)	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-4SR, MW-4D, MW-7S, MW-7D, MW-18D, MW-24S, MW-25S	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 water table. Elevated concentrations of ETPH, VOCs, and SVOCs detected in SB-13 (25.5-27.5') below water table (~15ft.) SB-45: Metals detected SB-59: PAHs, Cyanide, and VOCs detected Fill observed: Brick observed at 0.5-3.0 ft. in SB-21 and SB-59. 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. SB-45: Coal tar odors 30-41 ft. Coal tar blebs observed from 30-38 ft. SB-59: Coal and slag 2-3 ft. Coal tar odors 30 to 45 ft. PAHs,VOCs, and cyanide detected (2 to 3) SB-60: Coal tar odor 40 to 45 ft. Naphthalene and Xylene (VOCs) detected. SB-64: No visual impacts or odors.	**Shallow:** MW-1S:Metals detected above the SWPC. MW-3S: Metals and PAHs detected above the SWPC. VOCs detected. MW-4S: Metals detected above the SWPC. cyanide, VOCs (1,1,1-TCA) and SVOC (bis2-ethylhexylphthalate) detected. **Deep:** MW-1D: Metals detected above the SWPC. SVOCs detected. MW-3D: Metals detected above the SWPC. SVOCs and VOC (1,1,1-TCA) detected. MW4D: Lead detected above the SWPC.	**Shallow**: MW-4S: Cyanide, metals, VOCs, and PAHs detected MW-4SR: Acenaphthylene (PAH) detected above the SWPC. Cyanide detected. MW-25S: Cyanide, metals, and PAHs detected MW-3S/MW-7S: Metals and VOCs detected. PAHs and ETPH detected above the SWPC MW-1S: Metals, ETPH and PAHs detected above the SWPC. MW-24S: Coal tar obeerved development water. **Deep**: MW-1D: ETPH and VOCs detected. PAHs and metals (copper and nickel) detected above the SWPC. MW-4D/MW-7D: Metals detected. MW-18D: ETPH, VOCs, and PAHs detected above the SWPC. Metals detected. **Bedrock:** PAH (acenaphthylene) above SWPC [MW-3BR] . ETPH and VOCs detected. Metals detected.	Hockanum River is located up gradient on -site	Phase II (1990/1991) Human Health Risk Assessment (1994) Phase III ESA (2018)	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.

TABLE 5
Areas Of Concern (AOCs)/ Site Conceptual (CSM) Summary
Eversource Former Rockville MGP
13 Maple Street
Rockville, CT

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
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-4SR, 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, MW-19S, MW-24S, MW-25S	Phase III	See AOCs above for site investigation information for soils	See AOCs above for site investigation information for soils	**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-8SR, MW-9S, and MW-10M, MW-30S. Tar globules and staining observed in MW-2S, MW-10SR during development. Measureable coal tar observed in MW-10SR. See above AOCs for individual well summary of COCs. **Deep:** VOCs, 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] . ETPH and VOCs	Hockanum River is located up gradient on -site/ Losing Stream	Phase II Investigation (1992) Phase III Investigation (2016-2018)	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	Coal tar 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	Soil Borings TB-113, TB-115, TB-116, TB-117, TB-118, TB-119, TB-120, TB-121, TB-125, TB-126, TB-127, TB-130 Surface Soil 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, SB-61, SB-62, SB-66, SB-67	MW-13S, MW-13D, MW-14S, MW-14D	MW-13S, MW-13D, MW-14S, MW-14D, MW-19S, MW-20S, MW-21S, MW-26S, MW-26D, MW-26BR	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 along West Street	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-14 and MW-20S within coal tar-impacted intervals below the water table. SB-14: 20.5-23 ft. coated with coal tar material with coal tar odors. SB-61: 22.5-44 ft. coal tar blebs, odors, and sheen. SB-66: 20-30 ft. 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. No visual impacts in SB-62 and SB-67.	**Shallow:** MW-13S: Copper detected above the SWPC. Metals, SVOC (bis2-ethylhexylphthalate) detected .MW-14S: Metals detected **Deep** MW-13D: Metals detected. . MW-14D Metals detected. VOC (tetrachloroethylene) and SVOC (bis2-ethylhexylphthalate) detected.	**Shallow**: MW-MW-13S: Metals and bis2-ethylhexylphthalate) MW-14S: PAHs, metals and cyanide detected. MW-19S: Metals detected MW-21S: Metals and PAHs detected MW-20S: Tar globules / staining in MW-20S. **Deep:** MW-14D: ETPH, cyanide, Acenaphthylene (PAH) above SWPC. Metals and VOCs detected. MW-13D: Metals and naphthalene detected MW-26D: Acenaphthylene above SWPC. Metals and VOCs detected. **Bedrock**: MW-26BR Naphthalene and barium dectected	Hockanum River is located upgradient on-site and approximately 600 feet to the west.	Phase II (off-site) 1993 Phase III Investigation (2017-2018)	Additional Phase III ESA investigation is proposed to further assess groundwater conditions at St. Joseph's Church property and to assess the seasonality of groundwater conditions
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, SB-64	Groundwater not investigated	MW-28S MW-23S	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. ETPH, PAHs, and VOCs were not detected in SB-64 No visual impacts in SB-64	Groundwater not tested.	MW-23S: Metals detected MW-28S: Metals and naphthelene detected	Hockanum River located up gradient of location.	Phase II (off-site) 1993 Phase III Investigation (2018)	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 UST at former 8 Maple Street residence or other off-site source. Remedial evaluation impacts will be assessed rin the Remedial Evaluation.

TABLE 5
Areas Of Concern (AOCs)/ Site Conceptual (CSM) Summary
Eversource Former Rockville MGP
13 Maple Street
Rockville, CT

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
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.	**Shallow:** 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 (2018)	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.	**Shallow:** 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 (2018)	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.	**Shallow:** 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 (2018)	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
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.
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.

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Eversource Former Rockville MGP
13 Maple Street
Rockville, CT

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
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-13S, MW-13D, MW-14S, MW-14D, MW-19S, MW-20S, MW-21S, MW-23S, MW-26S, MW-26D, MW-26BR, MW-27S, MW-28S, MW-30S	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. MW-19S/MW-21S/MW-28S: metal and PAHs detected MW-13S and MW-26S (Plasticizers detected -possible labcontamination) MW-27S: ETPH, metals, and naphthalene detected MW-23S: Metals detected MW-14S: Cyanide, metals, and PAHs detected **Deep:** MW-14D: metals and VOCs detected. ETPH, Cyanide, and PAHs detected above the SWPC. MW-26D metals and VOCs detected, PAHs detected above SWPC **Bedrock:** MW-26BR Naphthalene and barium detected.	Hockanum River is located upgradient on-site and approximately 275 feet to 400 feet to the west.	Phase II (off-site) 1994 Phase III (2018)	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: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 24.67'
Depth to Bottom (ft): 30'
Screen Interval: 25'-30'
Point of Intake: 30'

Well: MW-1S
Date: 5/24/2018
Sample time: 10:22
Sampler: MQ
Purged (gal): ~1.25

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%)
9:45	120	24.66	4.96	14.7	140.8	6.14	264.3	622
9:50		24.67	5.64	14.4	59.70	4.37	233.5	583.5
9:55		24.67	5.68	14.4	41.79	4.55	227.5	565.6
10:00		24.67	5.74	14.6	35.12	4.63	218.6	562.2
10:05		24.67	5.74	14.4	29.11	4.05	196.3	571.0
10:10		"	5.82	14.6	15.80	4.21	192.1	571.5
10:15		24.67	5.82	14.7	14.49	4.13	189.4	570.9
10:20	↓	24.67	5.83	14.7	15.13	3.99	189.7	573.3

Analysis: VOCs / SVOCs / Metals / ETPH / Other- total cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site) Well: MW-10
Project Number: 14-0755-044 Date: 5/24/2018
Static Depth to Water (ft): 24.50 Sample time: 8:57
Depth to Bottom (ft): 74' Sampler: MG
Screen interval: [redacted] 65-75' Purged (gal): 1.75
Point of Intake: [redacted]

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%)
8:05	130	24.49	3.65	13.2	15.62	3.64	442.5	811
8:10	↓	24.49	3.46	13.1	19.34	3.19	455.1	819
8:15		24.49	3.46	13.3	13.09	3.66	456.1	814
8:20		24.50	3.46	13.2	14.06	3.81	456.1	816
8:25		24.50	3.47	13.4	11.73	4.12	454.4	815
8:30		24.50	3.54	13.2	11.59	4.24	447.0	809
8:35		24.50	3.55	13.4	11.24	4.03	441.7	807
8:40		24.50	3.55	13.3	11.17	4.35	445.0	804
8:45		24.50	3.55	13.2	11.53	4.19	443.5	801
8:50		24.50	3.56	13.3	12.26	3.95	442.8	799
8:55		24.50	3.56	13.3	11.73	3.89	442.3	797
9:00	↓							

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

Color: clear Turbidity: low
Odor: none Well Condition: good
Sheen: none Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 7.10
Depth to Bottom (ft): 14.75
Screen interval: 7-17
Point of intake:

Well: mw-25R
Date: 5/16/19
Sample time: 1445
Sampler: BSC
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%)
14:10	200	7.14	6.36	9.45	139.0	4.07	130.2	910
14:15	200	7.14	6.45	8.94	129.1	1.62	131.5	915
14:20	200	7.14	6.47	4.93	85.09	1.39	130.7	902
14:25	200	7.14	6.47	4.96	54.67	1.27	130.5	872
14:30	200	7.14	6.49	4.87	22.14	1.12	125.3	835
14:35	200	7.14	6.49	4.91	14.09	1.11	114.0	815
14:40	200	7.14	6.50	4.94	12.36	1.11	116.3	823

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

Color: Clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: capped
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 9.49
Depth to Bottom (ft): 59.62
Screen interval: 50-60
Point of intake:

Well: mw-28R
Date: 5/16/19
Sample time: 16:35
Sampler: BSC
Purged (gal): 6

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%)
15:10	200	9.50	7.13	11.19	4.04	6.13	109.0	576
15:15	200	8.52	7.24	11.23	1.02	5.53	110.0	575
15:20	200	9.52	7.25	11.22	0.97	5.46	112.5	575
15:25	200	9.53	7.27	11.23	0.00	5.34	115.7	575
15:30	200	8.53	7.27	11.22	0.00	5.39	117.5	575
15:35	200	9.53	7.27	11.30	0.00	5.41	119.3	575
15:40	200	9.53	7.27	11.29	0.00	5.33	119.6	575
15:45	200	9.53	7.27	11.32	0.00	5.44	119.7	576
15:50	200	9.53	7.24	11.27	0.00	5.45	120.9	576
15:55	200	9.53	7.24	11.23	0.00	5.51	121.2	577
16:00	200	9.53	7.24	11.19	0.00	5.53	122.0	577
16:05	200	9.53	7.27	11.24	0.00	5.52	122.2	578
16:10	200	9.53	7.27	11.26	0.00	5.44	122.3	579
16:15	200	9.53	7.29	11.20	0.00	5.42	122.9	579
16:20	200	9.53	7.29	11.31	0.00	5.51	122.6	580
16:25	200	9.53	7.24	11.29	0.00	5.49	122.4	581
16:30	200	9.53	7.24	11:31	0.00	5.35	122.2	582

Sampled 16:35

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

mw-25: DTW 7.11
mw-20: 9.79 31.06
mw-28 06 Product
mw-bottom 16 mw-20

Color: Clear
Odor: None
Sheen: None

Turbidity: low
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 15.02
Depth to Bottom (ft): 20.31
Screen interval: 10-20'
Point of intake:

Well: MW-35
Date: 5/24/19
Sample time: 9:00
Sampler: BMC
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%)
9:15	140	15.02	6.53	9.33	77.41	42.87	43.7	439
9:20	140	15.02	6.59	9.97	24.66	1.46	37.4	437
9:25	140	15.02	6.53	9.20	19.31	1.93	33.1	437
9:30	140	15.02	6.52	9.30	15.55	1.99	35.1	436
9:35	140	15.02	6.51	9.06	22.52	1.92	41.6	443
9:40	140	15.02	6.49	9.64	21.66	2.27	49.0	445
9:45	140	15.02	6.46	9.65	17.40	2.96	60.0	449
9:50	140	15.02	6.49	9.70	17.95	3.06	64.5	450
9:55	140	15.02	6.49	9.64	10.73	3.10	67.2	451

Duplicate @ 9:00

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 3 HL unpres Ambers 3 HNO3 Plastic 1 Other H2O2
Pump: Bladder / Peristaltic / Grunfos / Other-

Color: None
Odor: Faint Sulfur odor
Sheen: None

Turbidity: low
Well Condition: good
Repairs: none

pre-purge bubbles in tubing skewing YSI readings. Re-adjusted tubing

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site) **Well:** MW-38R
Project Number: 14-0755-044 **Date:** 5/30/2018
Static Depth to Water (ft): 17.44' **Sample time:** 10:25
Depth to Bottom (ft): 105' **Sampler:** mmg
Screen interval: 90-100' **Purged (gal):** ~2 gal
Point of intake:

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%)
9:40	180	17.38	13.36	8.97	17.55	4.39	131.9	249.4
9:45		17.41	8.96	13.3	20.56	4.09	131.6	247.3
9:50		17.43	9.10	13.4	18.84	4.03	117.2	245.1
9:55		17.43	9.33	13.8	9.34	4.46	101.4	244.6
10:00		17.43	9.36	13.6	8.05	4.44	96.3	245.3
10:05		17.43	9.34	13.3	8.01	4.46	95.3	245.9
10:10		17.45	9.39	13.8	8.50	4.39	90.3	246.0
10:15		17.45	9.37	13.7	6.83	4.27	90.0	245.4
10:20		17.45	9.36	13.7	6.92	4.26	90.1	245.6
10:25	↓	17.45	9.37	13.6	6.91	4.26	89.9	245.3

Analysis: (VOCs) / SVOCs / (Metals) / ETPH / Other- cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
atic Depth to Water (ft): 13.36
Depth to Bottom (ft): 15.67
Screen Interval: 10 slot 5-15'
Point of Intake:

Well: MW-45
Date: 5/22/25
Sample time: 9:25
Sampler: VSC
Purged (gal): 1.25 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%)
9:50	112.5	13.34	6.38	10.94	128.3	5.70	112.9	229
9:55	125	13.34	6.16	10.65	86.14	6.14	128.2	232
9:00	125	13.39	6.15	10.84	27.43	4.74	135.6	233
9:05	125	13.39	6.15	10.85	13.61	4.35	142.6	235
9:10	125	13.34	6.16	10.81	9.51	4.20	144.6	236
9:15	125	13.39	6.15	10.83	3.27	4.14	150.3	237

Sampled @ 9:25

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Total Cyanide
Sample Containers: HCl voas 6 1L unpres Ambers 6 HNO3 Plastic 2 Other 2-NaOH Collected MW-DUP
Pump: Bladder / Peristaltic / Grunfos / Other-

Color: clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 13.34
Depth to Bottom (ft): 61.80
Screen Interval: 46.5-56.5
Point of Intake:

Well: MW-41D
Date: 5/22/19
Sample time: 11:45
Sampler: BSC
Purged (gal): 4.5

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%)
10:30	140	13.34	6.74	12.11	54.72	8.97	174.2	322
10:35	140	13.35	6.65	12.14	52.54	8.10	150.9	324
10:40	140	13.35	6.51	12.16	33.76	6.91	151.3	341
10:45	140	13.35	6.35	12.20	35.58	4.44	154.4	353
10:50	140	13.35	6.24	12.14	31.45	2.91	157.4	360
10:55	140	13.35	6.26	12.09	21.93	1.63	159.8	365
11:00	140	13.35	6.25	12.12	22.31	1.30	146.4	365
11:05	140	13.35	6.25	12.14	21.57	1.04	170.2	367
11:10	140	13.35	6.25	12.14	14.29	0.80	141.2	368
11:15	140	13.35	6.27	12.13	15.56	0.67	125.8	369
11:20	140	13.35	6.29	12.10	15.32	0.54	94.4	371
11:25	140	13.35	6.31	12.10	8.16	0.53	73.7	371
11:30	140	13.35	6.33	12.06	10.60	0.44	52.2	373
11:35	140	13.35	6.34	12.02	11.34	0.42	45.4	373
11:40	140	13.35	6.34	12.04	10.34	0.44	43.6	373

Sampled 11:45

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Total Cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 6.71
Depth to Bottom (ft): 14.68
Screen interval: 10' 5-15'
Point of intake:

Well: MW-55
Date: 5/16/24
Sample time: 0950
Sampler: BGK
Purged (gal): 3.5 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%)
10:10	200	6.73	6.56	10.05	58.74	1.44	93.5	295
10:15	200	6.73	6.52	10.12	24.44	0.44	93.9	294
10:20	200	6.73	6.60	9.95	12.41	0.56	94.3	294
10:25	200	6.73	6.64	9.64	156.3	0.41	93.7	297
10:30	200	6.73	6.65	10.01	64.91	0.26	89.7	295
10:35	200	6.73	6.61	10.10	4.46	0.17	91.3	295
10:40	200	6.73	6.59	10.10	4.14	0.14	95.5	293

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

Color: Clear
Odor: none
Sheen: none

Turbidity: Clear
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 9.62
Depth to Bottom (ft): 34.11
Screen interval: 18-28
Point of intake:

Well: MW-5D
Date: 5/11/19
Sample time: 1200
Sampler: KJK
Purged (gal): 3.5

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%)
11:30	200	9.62	6.66	10.79	25.15	8.53	109.8	246
11:35	200	9.62	6.54	11.16	10.42	0.54	122.1	246
11:40	200	9.62	6.54	11.03	11.03	0.26	123.2	246
11:45	200	9.62	6.51	10.99	11.07	0.19	124.1	246
11:50	200	9.62	6.47	10.74	6.59	0.13	125.1	248
11:55	200	9.62	6.44	10.77	2.48	0.10	128.4	247

Completed 1200

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

Color: Clear
Odor: None
Sheen: None

Turbidity: low
Well Condition: good
Repairs: None

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 6.37
Depth to Bottom (ft): 16.40
Screen interval: 7-17
Point of intake:

Well: MW-[illegible]
Date: 5/16/24
Sample time: 1345
Sampler: BJK
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%)
12:55	200	6.41	6.71	10.15	195.9	0.45	100.4	263
1300	200	6.41	6.90	9.45	176.4	0.14	99.0	261
1305	200	6.41	6.95	9.76	114.2	0.13	103.0	262
1310	200	6.41	6.96	9.75	44.25	0.09	110.2	264
13:15	200	6.41	6.90	9.76	49.77	0.04	115.3	262
13:20	200	6.41	6.84	9.75	63.69	0.02	114.5	260
13:25	200	6.41	6.81	9.66	47.49	0.03	121.1	261
13:30	200	6.41	6.80	9.72	40.01	0.01	123.9	260
13:35	200	6.41	6.74	9.70	21.04	0.00	124.2	261
13:40	200	6.41	6.74	9.70	25.74	0.00	124.3	261

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

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 10.09
Depth to Bottom (ft): 15.11
Screen interval: 2-12'
Point of intake:

Well: MW-65
Date: 5/22/19
Sample time: 14:20
Sampler: RJC
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%)
13:50	140	10.12	5.93	9.10	57.23	1.49	155.7	317
13:55	140	10.12	5.89	9.95	14.39	1.57	158.7	314
14:00	140	10.12	5.87	9.72	7.93	1.49	161.0	313
14:05	140	10.12	5.88	9.69	7.00	1.49	161.6	313
14:10	140	10.12	5.89	9.66	2.99	1.76	161.4	313
14:15	140	10.12	5.90	9.67	1.72	1.90	161.5	313

Sample collected @ 14:20

Analysis: (VOCs) / SVOCs / Metals / ETPH / Other- Total Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other NaOH
Pump: Bladder (Peristaltic) / Grunfos / Other-

Color: clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 11.99
Depth to Bottom (ft): 36.67
Screen Interval: ~~22-37~~ 25-35
Point of Intake: 34

Well: mw-6D
Date: 5/22/26
Sample time: 15:45
Sampler: KA
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%)
14:55	150	12.44	6.20	7.53	1427	0.49	70.3	265
15:00	150	12.36	6.19	7.93	97.44	0.64	62.6	265
15:05	150	12.34	6.17	7.95	70.13	0.61	61.3	265
15:10	150	12.34	6.17	7.69	57.56	0.73	59.0	265
15:15	150	12.34	6.17	7.69	48.93	0.71	58.4	265
15:20	150	12.34	6.17	7.66	50.71	0.65	57.7	265
15:25	150	12.34	6.19	7.69	45.69	0.62	57.4	264
15:30	150	12.34	~~7.95~~	7.93	25.99	0.59	56.6	263
15:35	150	12.34	6.19	7.91	12.10	0.54	58.6	264
15:40	150	12.34	6.19	7.88	9.15	0.65	59.4	264

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

Color: clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 30.15
Depth to Bottom (ft): 43.75
Screen interval: 73-83' fGW
Point of intake:

Well: MW-70
Date: 5/31/17
Sample time: 07:45
Sampler: JPC
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%)
0655	150	13.15	7.76	12.4	201.9	5.62	134.1	485.6
0700	150	30.17	6.84	12.5	451.1	5.62	134.2	676
0705	150	30.18	6.75	12.4	630.7	5.41	131.2	650
0710	150	30.20	6.73	12.4	344.4	5.45	127.6	651
0715	150	30.20	6.74	12.4	337.9	5.47	125.4	650
0720	150	30.20	6.75	12.4	194.3	5.47	122.5	674
0725	150	30.20	6.75	12.4	137.4	5.45	120.4	671
0730	150	30.20	6.75	12.4	130.7	5.46	120.5	674
0735	150	30.20	6.76	12.5	81.46	5.43	114.2	677
0740	150	30.20	6.76	12.6		5.44	114.3	677

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

Color: clear
Odor: none
Sheen: none

Turbidity: 66.32
Well Condition: needs new standpipe
Repairs: —

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 27.17
Depth to Bottom (ft): 32.71
Screen interval: 23-33'
Point of intake:

Well: MW-75
Date: 5/24/19
Sample time: 10:40
Sampler: JDC
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%)
9:55	140	27.17	6.03	12.24	76.70	3.50	60.4	644
10:00	140	27.17	6.02	12.05	100.4	1.39	60.3	657
10:05	140	27.17	6.02	12.07	96.95	1.17	56.4	674
10:10	140	27.17	6.02	12.42	52.72	0.99	55.9	676
10:15	140	27.17	6.01	12.95	37.54	0.70	29.2	675
10:20	140	27.17	5.99	13.24	29.63	0.57	14.4	674
10:25	140	27.17	5.94	13.40	14.54	0.51	7.1	667
10:30	140	27.17	5.97	13.49	12.01	0.48	0.5	663
10:35	140	27.17	5.97	13.47	7.31	0.46	-1.2	664

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

Color: Clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 6.37
Depth to Bottom (ft): 16.40
Screen interval: 7-17
Point of intake:

Well: MW-85R
Date: 5/16/24
Sample time: 1345
Sampler: BM
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%)
12:55	200	6.41	6.71	10.15	195.9	0.45	160.4	263
1300	200	6.41	6.90	9.45	176.4	0.18	99.0	261
1305	200	6.41	6.95	9.76	114.2	0.13	103.0	262
1310	200	6.41	6.96	9.75	44.25	0.09	110.2	264
13:15	200	6.41	6.90	9.76	49.77	0.04	115.3	262
13:20	200	6.41	6.84	9.75	63.69	0.02	114.5	260
13:25	200	6.41	6.81	9.66	47.49	0.03	121.1	261
13:30	200	6.41	6.80	9.72	40.04	0.04	123.9	260
13:35	200	6.41	6.74	9.70	21.04	0.00	124.2	261
13:40	200	6.41	6.74	9.70	24.74	0.00	124.3	261

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

Color: Clear
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 14.46
Depth to Bottom (ft): 24.73
Screen interval: 15-25
Point of intake:

Well: mw-45
Date: 5/29/14
Sample time: 15:35
Sampler: BJC
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%)
15:05	140	15.02	6.21	14.00	6.42	0.93	-99.7	770
15:10	140	15.05	6.23	13.99	6.86	0.94	-103.9	773
15:15	140	15.07	6.27	13.68	5.99	1.14	-106.7	777
15:20	140	15.07	6.29	13.59	5.93	0.91	-108.8	750
15:25	140	15.07	6.31	13.52	6.59	0.66	-105.0	743
15:30	140	15.07	6.32	13.54	4.32	0.64	-102.6	745

Sampled 15:35

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

Color: Clear
Odor: Cyanide
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 14.34
Depth to Bottom (ft): 64.41
Screen interval: 15-25 ft
Point of Intake:

Well: mw-9D
Date: 5/24/19
Sample time: 16:50
Sampler: TRC
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%)
16:05	140	14.34	7.22	13.70	17.63	11.40	343	346
16:10	140	14.34	7.21	13.51	14.57	11.60	54.4	344
16:15	140	14.34	7.21	13.62	26.14	11.54	65.4	344
16:20	140	14.34	7.22	13.60	30.97	11.51	71.4	345
16:25	140	14.34	7.24	13.57	34.61	11.23	74.3	346
16:30	140	14.34	7.25	13.51	30.75	11.04	91.7	347
16:35	140	14.34	7.24	13.51	32.20	11.05	95.7	348
16:40	140	14.34	7.27	13.45	27.41	10.93	99.7	349
16:45	140	14.34	7.27	13.44	16.93	10.81	99.3	349

Sampled 16:50

Analysis: VOCs / SVOCs / Metals / ETPH / Other-
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other None
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear
Odor: Gasoline
Sheen: None

Turbidity: Low
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 28.04
Depth to Bottom (ft): 78.7'
Screen interval: 50-60
Point of intake:

Well: MW-10M
Date: 5/24/2018
Sample time: 3:47
Sampler: mg
Purged (gal): ~25

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%)
3:00	180	21.76	5.73	15.0	45.96	3.69	154.8	487.6
3:05	↓	28.00	5.68	14.8	22.44	0.52	163.0	488.5
3:10	↓	28.02	5.67	14.8	11.62	0.31	167.6	487.6
3:15	↓	28.02	5.66	14.7	6.15	0.19	172.5	486.6
3:20	↓	28.04	5.67	14.6	7.49	0.15	175.9	485.4
3:25	↓	28.04	5.66	14.6	5.08	0.16	176.9	486.5
3:30	↓	28.04	5.68	14.6	4.56	0.13	178.3	485.1
3:35	↓	28.04	5.70	14.6	4.29	0.05	182.2	483.3
3:40	↓	28.04	5.71	14.6	3.04	0.04	183.3	483.2
3:45	↓	28.04	5.71	14.6	3.10	0.04	183.6	483.0

Analysis: (VOCs) / SVOCs / (Metals) / (EPH) / Other- Cyanide
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NaOH + DUP
Pump: Bladder / Peristalic / Grunfos / Other-

Color: clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 22.27'
Depth to Bottom (ft): 102'
Screen Interval: 90-100
Point of intake:

Well: MW-108R
Date: 5/30/2018
Sample time: 12:57
Sampler: mmg
Purged (gal): ~2.75gal

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%)
12:00	180	22.21	10.22	16.2	25.42	3.09	69.5	319.0
12:05	↓	22.24	10.45	16.0	20.99	2.61	21.8	316.0
12:10		22.25	10.48	15.9	19.48	2.59	9.8	315.5
12:15		22.25	10.57	15.9	21.37	2.53	-17.2	316.5
12:20		22.27	10.55	15.5	19.68	2.56	-14.2	315.8
12:25		22.27	10.57	15.3	19.10	2.54	-6.5	315.5
12:30		22.27	10.38	15.1	16.99	2.55	-0.4	313.5
12:35		22.27	10.37	15.4	[illegible]	2.49	-2.5	313.3
12:40		22.27	10.44	15.3	17.33	2.69	-0.1	314.3
12:45		22.27	10.45	15.3	15.07	2.65	0.4	314.3
12:50		22.28	10.50	14.8	15.81	2.60	2.1	313.5
12:55	↓	22.28	10.53	15.0	15.78	2.56	1.8	312.7

Analysis: (VOCs) / SVOCs / (Metals) / (ETPH) / Other- cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 12.23'
Depth to Bottom (ft): 20'
Screen interval: 7.5-17.5'
Point of intake:

Well: MW-115
Date: 5/22/2018
Sample time: 9:32A
Sampler: MG
Purged (gal): ~1.75gal

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%)
8:35	120	12.2'	6.83	11.0	31.91	1.52	136.4	545.3
8:40	↓	12.2'	6.43	10.9	29.51	0.84	134.6	527.5
8:45		12.2'	6.43	10.7	69.87	0.61	128.2	517.1
8:50		12.2'	6.44	10.4	23.50	0.55	125.5	501.3
8:55		12.2'	6.44	10.4	58.79	0.44	120.4	493.7
9:00		12.2'	6.47	10.5	16.48	0.40	118.3	479.6
9:05		12.23'	6.49	10.9	15.02	0.36	116.2	472.2
9:10		12.23'	6.49	10.7	16.44	0.34	115.4	457.2
9:15		12.23'	6.49	10.8	12.30	0.30	114.8	444.1
9:20		12.23	6.49	10.9	11.38	0.29	114.5	435.1
9:25		12.23	6.49	10.8	11.51	0.27	114.7	434.8
9:30	↓	12.23	6.49	10.9	11.53	0.27	115.0	434.1

Analysis: (VOCs) / (SVOCs) / (Metals) / (ETPH) / Other- cyanide
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: low
Well Condition: good
Repairs: n/a

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 11.77
Depth to Bottom (ft): 26'
Screen interval: 19.24'
Point of intake:

Well: 110
Date: 5/22/2018
Sample time: 10:57a
Sampler: mg
Purged (gal): ~4.25gal

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%)
10:20	180	11.75'	6.68	10.6	50.68	2.46	172.4	259.8
10:25	↓	11.75'	6.67	10.4	51.43	2.31	172.7	258.9
10:30		11.76'	6.48	10.1	47.22	0.62	172.7	255.1
10:35		11.76'	6.38	10.2	32.07	0.39	174.5	253.4
10:40		11.77'	6.37	10.3	19.54	0.26	167.8	254.2
10:45		11.77'	6.37	10.5	19.38	0.23	166.8	253.6
10:50		11.77'	6.35	10.3	18.21	0.19	165.8	253.0
10:55		11.77	6.36	10.5	19.44	0.16	164.3	253.4
MW08								

Analysis: VOCs / SVOCs / Metals / ETPH / Other- cynac
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: low
Well Condition: good
Repairs: N/A

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 11.77
Depth to Bottom (ft): 22.0'
Screen interval: 6-16
Point of Intake:

Well: MW-12S
Date: 5/22/2018
Sample time: 1132
Sampler: MG
Purged (gal): ~3.5 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%)
12:55	180	11.72	6.52	11.4	179.4	3.47	211.7	302.4
1:00	↓	11.75	6.39	11.3	6.09	1.12	212.0	291.2
1:05		11.75	6.34	11.0	1.57	0.81	210.0	286.8
1:10		11.76	6.33	11.0	8.77	0.74	209.3	286.7
1:15		11.76	6.32	10.9	2.92	0.67	208.1	286.3
1:20		11.76	6.31	10.9	1.83	0.58	205.6	285.6
1:25		11.77	6.31	10.9	1.43	0.56	204.9	287.4
1:30	↓	11.77	6.31	10.9	1.57	0.58	204.5	288.7

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

Color: clear
Odor: none
Sheen: none

Turbidity: good/10N
Well Condition: good
Repairs: N/A

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 11.61
Depth to Bottom (ft): 24.5
Screen interval: 17-22
Point of Intake:

Well: 12D
Date: 5/22/2018
Sample time: 3:05
Sampler: MA
Purged (gal): ~9

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%)
2:10	180	11.55	6.17	11.8	115.3	1.42	90.5	492.4
2:15	↓	11.56	6.15	11.8	84.62	0.87	87.6	495.0
2:20		11.59	6.15	11.9	81.07	0.61	80.7	501.9
2:25		11.60	6.13	11.8	66.96	0.42	74.5	524.5
2:30		11.61	6.13	11.9	58.53	0.36	72.0	533.2
2:35		11.61	6.12	11.7	30.41	0.31	69.8	546.5
2:40		11.61	6.13	11.5	24.97	0.25	64.5	559.7
2:45		11.61	6.13	11.6	25.97	0.24	65.0	560.6
2:50		11.61	6.13	11.5	25.91	0.22	65.7	562.1

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 11.46'
Depth to Bottom (ft): 19.50'
Screen interval: 10-20'
Point of intake:

Well: MW-14S
Date: 5/24/2018
Sample time: 12:44
Sampler: mg
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%)
11:45	180	11.22	5.94	15.3	23.72	0.87	219.3	7107
11:50	↓	11.43	5.96	14.9	20.76	0.32	207.4	6774
11:55		11.45	5.94	15.4	14.96	0.22	199.2	5662
12:00		11.45	5.95	15.2	12.68	0.20	196.1	5367
12:05		11.46	5.97	15.4	12.70	0.22	190.6	5167
12:10		11.46	5.95	15.1	12.40	0.26	184.7	5006
12:15		11.46	5.99	15.3	12.09	0.35	180.9	4947
12:20		11.46	5.98	15.5	3.09	0.37	176.6	4907
12:25		11.46	5.99	15.4	2.64	0.44	174.0	4895
12:30		11.46	5.99	15.2	3.58	0.46	172.4	5103
12:35		11.46	5.99	15.0	3.38	0.48	171.9	4999
12:40	↓	11.46	5.98	15.1	3.31	0.49	171.6	5132

Analysis: (VOCs) / (SVOCs) / (Metals) / (ETPH) / Other-
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 11.02'
Depth to Bottom (ft): 75.6'
Screen Interval: 67-77
Point of Intake:

Well: MW-14D
Date: 5/24/2018
Sample time: 2104
Sampler: mg
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%)
1:15	180	10.99	6.72	15.6	13.25	0.06	-44.1	907
1:20	↓	11.01	6.64	15.6	17.14	0.09	-69.9	209.7
1:25		11.01	6.67	16.1	32.35	0.07	-71.1	176.1
1:30		11.02	6.67	15.7	16.06	0	-76.9	151.8
1:35		11.02	6.68	16.0	20.23	0	-80.5	151.2
1:40		11.02	6.69	15.9	11.77	0	-85.2	149.2
1:45		11.02	6.69	15.9	10.53	0	-85.5	149.1
1:50		11.02	6.70	15.8	11.13	0	-86.7	148.5
1:55		11.02	6.69	15.6	11.49	0	-86.6	147.8
2:00		11.02	6.69	15.7	11.96	0	-86.7	147.7

Analysis: (VOCs) / SVOCs / (Metals) / (EPH) / Other- cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 11.20
Depth to Bottom (ft): 20.05
Screen interval: 10-20
Point of intake:

Well: [illegible] MW-14S
Date: 5/22/19
Sample time: 17:45
Sampler: TSR
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%)
12:40	140	11.23	6.11	9.27	4.06	6.12	140.4	293
12:45	140	11.23	6.09	9.15	6.52	5.52	144.5	291
12:50	140	11.23	6.11	9.17	0.57	5.63	154.8	293
12:55	140	11.23	6.11	9.17	0.00	5.67	159.3	294
13:00	140	11.23	6.11	9.19	0.00	5.65	161.2	293

Discontinued @ 13:05

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

Color: —
Odor: —
Sheen: —

Turbidity: —
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville
Project Number: E-0755-44
Static Depth to Water (ft): 10.43
Depth to Bottom (ft): 16.70
Screen interval: 10' (7-17)
Point of intake:

Well: MW-17S
Date: 5/16/18
Sample time: 9:35
Sampler: RJC
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%)
9:50	140	10.46	6.56	11.66	36.59	10.94	63.6	114
9:55	140	10.46	6.30	11.44	22.15	9.77	94.6	114
9:00	140	10.46	6.27	11.34	10.44	9.51	113.4	112
9:05	140	10.46	6.27	11.24	5.05	9.24	122.6	112
9:10	140	10.46	6.24	11.27	2.27	9.39	130.5	114
9:15	140	10.46	6.34	11.22	1.92	9.21	132.3	114
9:20	140	10.46	6.42	11.24	1.36	9.35	136.3	115
9:25	140	10.46	6.45	11.38	1.14	9.22	139.2	116
9:30	140	10.46	6.46	11.34	1.07	9.23	139.7	116

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

Color: clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource (Former Rockville MGP Site)
Project Number: 14-0755-044
Static Depth to Water (ft): 20.04'
Depth to Bottom (ft): 86.31' (Stick up)
Screen interval: 77-87
Point of intake:

Well: MW-180
Date: 5/30/2018
Sample time: 9:02AM
Sampler: MMG
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%)
8:15	120	19.95	7.34	16.1	606.11	RAM"	21.7	407.3
8:20	120	19.97	7.41	16.0	62.31	RAM"	19.7	409.0
8:25	180	20.04	7.55	16.1	58.62	7.94	11.3	415.2
8:30	180	20.04	7.21	15.3	22.57	0.24	1.1	407.8
8:35	180	20.04	7.41	15.7	17.23	0.07	-18.7	409.5
8:40	180	20.04	7.55	15.8	17.75	0.02	-27.0	408.6
8:45	180	20.04	7.54	15.5	16.41	0.00	-34.5	411.2
8:50	180	20.04	7.52	15.6	16.27	0.00	-34.1	409.6
8:55	180	20.04	7.53	15.4	14.37	0.00	-40.5	413.7
9:00	180	20.04	7.47	15.3	16.93	0.00	-38.7	413.5

Analysis: VOCs / SVOCs / Metals / ETPH / Other- cyanide
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: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 17.64
Depth to Bottom (ft): 23.79
Screen interval: 14-24'
Point of intake:

Well: MW-19S
Date: 5/12/11N
Sample time: 12:35
Sampler: BPC
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%)
11:45	140	17.73	6.01	12.91	22.03	10.56	123.2	241
11:50	140	17.73	5.95	13.09	17.42	10.57	144.3	240
11:55	140	17.73	5.94	12.72	12.86	10.57	162.0	243
12:00	140	17.73	5.94	12.94	10.49	10.51	169.4	242
12:05	140	17.73	5.93	12.95	9.99	12.11	177.6	249
12:10	140	17.73	5.93	12.60	5.99	12.04	182.2	251
12:15	140	17.73	5.94	12.35	5.40	12.04	182.7	252
12:20	140	17.73	5.95	12.55	5.03	11.94	183.3	252

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

Color: Clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 20.74
Depth to Bottom (ft): 30.63
Screen interval: 10' 20-30'
Point of intake:

Well: MW-215
Date: 5/24/19
Sample time: 13:50
Sampler: SPC
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%)
13:00	140	20.74	6.23	15.71	459.5	8.09	139.1	747
13:05	140	20.74	6.15	15.36	412.1	9.16	146.9	742
13:10	140	20.74	6.15	15.05	541.4	10.91	140.9	742
13:15	140	20.74	6.16	15.30	644.5	9.45	144.9	741
13:20	140	20.74	6.14	15.07	413.2	9.63	207.2	744
13:25	140	20.74	6.13	15.06	173.1	9.16	212.9	742
13:30	140	20.74	6.14	15.04	81.93	9.21	214.8	743
13:35	140	20.74	6.15	14.92	50.60	9.24	216.4	747
13:40	140	20.74	6.15	14.84	33.76	9.13	217.6	743
13:45	140	20.74	6.16	14.69	23.93	9.30	216.3	747

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

* Further cen Gathed by siphoning tubing from well Clear

Color: Clear
Odor: none
Sheen: none

Turbidity: low 11.33
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Eversource-Rockville MGP
Project Number: E-0755-44
Static Depth to Water (ft): 33.44
Depth to Bottom (ft): 34.72
Screen interval: 29-39
Point of intake:

Well: MW-23S
Date: 5/30/24
Sample time: 0425
Sampler: BSK
Purged (gal): 4

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%)
0425	250	33.83	7.94	14.6	452.3	9.61	125.3	359.2
0430	250	34.25	6.23	13.5	447.7	9.09	140.8	353.4
0435	250	34.40	6.00	13.4	406.2	9.57	135.6	342.1
0440	250	34.32	6.01	13.4	465.6	9.73	130.1	335.7
0445	250	34.32	6.05	13.4	434.7	9.09	123.4	336.1
0450	250	34.32	5.96	13.3	447.4	9.29	126.7	336.1
0455	250	34.32	5.94	13.3	457.2	9.37	124.2	334.8
0900	250	34.32	5.98	13.2	576.7	9.50	123.0	343.3
0905	250	34.32	6.01	13.3	533.8	9.45	121.5	344.1
0910	250	34.32	6.04	13.3	531.7	9.32	118.3	346.5
0915	250	34.32	5.98	13.2	401.2	9.50	122.4	346.1
0920	250	34.32	6.00	13.3	457.0	9.44	121.5	347.2

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

Color: clear
Odor: none
Sheen: none

Turbidity: 214.3
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 16.47
Depth to Bottom (ft): 100
Screen interval: 90-100
Point of intake: ~95

Well: MW-3BR
Date: 10/24/18
Sample time: 14:03
Sampler: LW
Purged (gal): ~2

YSI Pro+ MicroTPW mS/cm

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%)
12:52	~200	16.54	9.41	11.8	1.02	9.12	26.1	303.8
12:55	~200	16.93	9.40	11.9		8.27	26.4	299.1
12:58	~200	18.35	9.40	11.9	0.82	7.33	26.6	294.2
13:01	~100	17.56	9.38	11.8		5.01	28.1	299.8
13:04	~100	17.75	9.35	11.7		2.98	32.0	295.3
13:07	~100	17.94	9.35	11.8		2.95	33.0	295.1
13:10	~100	18.14	9.34	11.8		2.93	34.1	294.9
13:13	~100	18.35	9.33	11.8		2.91	34.7	294.8
13:16	~100	18.55	9.33	11.9	0.35	2.91	35.2	294.7
13:19	~100	18.75	9.32	11.8		2.87	35.8	294.6
13:22	~100	18.94	9.32	11.7		2.86	36.4	294.3
13:25	~100	19.13	9.32	11.6		2.84	37.3	294.2
13:28	~100	19.34	9.32	11.6		2.84	37.6	294.2
13:31	~100	19.53	9.32	11.5		2.84	37.9	294.3
13:34	~100	19.72	9.32	11.5	0.37	2.82	38.3	294.3
13:37	~100	19.81	9.32	11.5		2.82	38.5	294.4
13:40	~100	19.99	9.32	11.5		2.81	38.8	294.3
13:43	~100	20.18	9.32	11.5		2.81	38.6	294.1
13:46	~100	20.37	9.31	11.5		2.80	38.7	294.2
13:49	~100	20.57	9.31	11.6		2.80	38.8	294.1
13:52	~100	20.75	9.31	11.6	0.33	2.80	38.8	294.0
13:55	~100	20.95	9.31	11.6		2.80	38.9	294.0
13:58	~100	21.16	9.31	11.6		2.80	38.9	293.9
14:01	~100	21.37	9.31	11.6		2.79	38.3	293.9

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

Color: clear
Odor: none
Sheen: none

Turbidity: clear
Well Condition: good
Repairs: none

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Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 13.52 FTOC
Depth to Bottom (ft): 20
Screen interval: 10-20
Point of intake: ~17 FTOC

Well: MW-45R
Date: 10/24/18
Sample time: 9:26
Sampler: LV
Purged (gal): ~1.5 gallons

YSI Pro +

MicroTPW

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)~~ mS/cm (<3%)
837		13.52						
855	~180	13.54	7.69	16.3		2.40	20	366.9
858	~180	13.54	6.92	16.6	1.64	2.14	24.6	330.2
901	~120	13.54	6.59	16.7		1.77	27.7	328.7
904	~120	13.54	6.50	16.8		1.63	29.4	322.6
907	~120	13.54	6.40	16.9	1.18	1.50	31.1	316.4
910	~200	13.54	6.38	17.2		1.60	32.7	315
913	~200	13.54	6.36	17.1		1.31	33.4	310.8
916	~200	13.54	6.34	17.3	0.25	1.20	34.4	315.4
919	~200	13.54	6.32	17.3		1.30	35.1	312.6
921	~200	13.54	6.30	17.3		1.35	36.6	309.1
924	~200	13.54	6.31	17.2		1.34	37.1	308.7

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
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: clear
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 30.06
Depth to Bottom (ft): 43
Screen Interval: 33-43
Point of intake:

Well: MW-7D
Date: 10/25/21
Sample time: 14:10
Sampler: RJC
Purged (gal): 4.5

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%)
12:35		30.06	6.94	12.4	374.7	4.05	139.5	635.5
12:40		30.06	6.74	12.6	253.6	6.94	165.4	648.3
12:45		30.06	6.74	12.8	184.1	6.72	179.9	645.6
12:50		30.06	6.74	12.7	117.3	6.51	193.1	647.7
12:55		30.06	6.75	12.1	92.54	6.16	197.7	648.4
13:00		30.06	6.77	12.0	70.81	5.65	204.1	651.4
13:05		30.06	6.77	12.3	59.10	5.41	209.0	649.4
13:10		30.06	6.79	12.3	48.65	5.51	210.4	650.6
13:15		30.06	6.80	13.0	45.11	5.74	209.3	646.4
13:20		30.06	6.91	13.3	40.30	5.39	209.4	649
13:25		30.06	6.77	12.6	32.14	5.76	216.7	649.2
13:30		30.06	6.81	13.2	24.69	5.47	214.7	651
13:35		30.06	6.79	13.5	26.32	5.91	213.7	646
13:40		30.06	6.81	12.6	21.23	5.99	209.1	649.1
13:45		30.06	6.79	12.9	20.83	5.94	207.4	647.3
13:50		30.06	6.77	13.1	17.19	5.61	235.7	649.4
13:55		30.06	6.81	13.3	9.46	5.82	208.7	649
14:00		30.06	6.81	13.2	7.43	5.81	236.3	647
14:05		30.06	6.81	13.3	3.28	5.79	234.3	646

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

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 22.06
Depth to Bottom (ft): 100
Screen Interval: ~80-100
Point of intake: 95

Well: MW-10BR
Date: 10/24/18
Sample time: 11:34
Sampler: LW
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%)
								µS/cm
10:35	~150	22.07	8.54	13.6		2.21	34.1	452.0
10:38	~150	22.08	8.85	13.5	2.70	1.99	32.8	496.2
10:41	~150	22.09	9.01	13.5		1.29	32.6	504.7
10:44	~150	22.10	9.20	13.4		0.77	32.2	512.1
10:47	~150	22.10	9.46	13.3		0.51	31.7	515.0
10:50	~150	22.10	9.70	13.2	1.64	0.39	31.1	516.7
10:53	~150	22.10	9.77	13.2		0.37	31.0	516.7
10:56	~150	22.10	9.79	13.2		0.35	30.2	516.7
10:59	~200	22.10	9.83	13.2		0.31	30.0	516.5
11:02	~300	22.10	9.85	13.1	1.09	0.29	29.9	516.3
11:05	~300	22.10	9.87	13.1		0.28	29.8	516.2
11:08	~300	22.10	9.88	13.1		0.27	29.7	516.1
11:11	~300	22.10	9.90	13.1	0.94	0.25	29.7	516.1
11:14	~300	22.10	9.92	13.0		0.23	29.4	515.8
11:17	~300	22.10	9.93	12.9	0.51	0.21	29.2	515.6
11:20	~300	22.10	9.93	12.9		0.20	29.2	515.6
11:23	~300	22.10	9.94	12.8		0.20	29.1	515.4
11:26	~300	22.10	9.94	12.8		0.20	29.1	515.4
11:29	~300	22.10	9.95	12.8		0.19	29.0	515.3
11:32	~300	22.10	9.95	12.8		0.19	29.0	515.3

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

Color: Clear
Odor: none
Sheen: none

Turbidity: clear
Well Condition: Good
Repairs: none

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 18.1
Depth to Bottom (ft): 23.75
Screen Interval: ~~13.75 - 23.75~~ 15.25
Point of intake: ~21

Well: MW-13S
Date: 10/24/18
Sample time: 16:05
Sampler: LW
Purged (gal): ~3 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)~~ µS/cm (<3%)
15:12	~250	18.10	9.01	15.2	107	9.11	32.8	1124
15:15	~250	18.10	8.87	15.3		8.03	45.1	1133
15:18	~250	18.10	7.76	15.2		7.76	45.8	1135
15:21	~250	18.10	8.44	15.2		6.25	46.0	1132
15:24	~250	18.10	7.93	15.0	90.8	4.51	55.4	1155
15:24	~250	18.10	7.30	15.2		4.26	68.3	1154
15:27	~250	18.10	7.16	15.0		4.20	70.1	1144
15:30	~250	18.10	7.04	15.3	61.7	4.14	72.2	1135
15:33	~250	18.10	6.81	15.4		4.16	73.8	1048
15:36	~250	18.10	6.69	15.4		4.19	76.0	1077
15:39	~250	18.10	6.61	15.2	30.9	4.22	76.8	1062
15:42	~250	18.10	6.56	15.1		4.31	76.8	1035
15:45	~250	18.10	6.50	15.1		4.37	76.8	1014
15:48	~250	18.10	6.47	15.1	10.1	4.55	76.6	981
15:51	~250	18.10	6.45	15.2		4.56	77.9	476
15:54	~250	18.10	6.43	15.1	6.23	4.62	78.2	973
15:57	~250	18.10	6.41	15.1	4.73	4.66	79.3	967
~~16:00~~	~250	18.10	6.41	15.1	4.36	4.68	79.5	962
16:03	~250	18.10	6.40	15.1	3.51	4.75	80.1	958

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyanide
Sample Containers: HCl voas 5 1L unpres Ambers 3 HNO3 Plastic 1 Other NaOH plastic
Pump: Bladder / Peristaltic / Grunfos / Other-

Color: clear
Odor: none
Sheen: none

Turbidity: clear
Well Condition: good
Repairs: none

First slug of H_2O very turbid led discharge prior to flow-thru cell.

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 18.12
Depth to Bottom (ft): 71
Screen interval: 63-73 ft
Point of intake:

Well: 13D
Date: 10-25-2018
Sample time: 1227
Sampler: WAC
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%)
1240	300	18.12	10.07	13.7	6.48	9.12	56.1	825
1243	300	18.20	9.77	13.4		9.50	57.4	823
1246	300	18.20	9.58	13.3		9.55	61.1	824
1249	300	18.20	9.27	13.3		9.54	66.6	823
1252	300	18.20	8.97	13.3		9.52	73.5	822
1255	300	18.20	8.88	13.2	3.89	9.58	74.1	826
1258	300	18.21	8.70	13.3		9.42	76.7	823
101	300	18.21	8.61	13.2		9.53	78.5	822
104	300	18.21	8.45	13.4	2.86	9.51	80.9	820
107	300	18.21	8.10	13.4		7.52	79.7	825
110	300	18.21	7.79	13.4		5.57	78.5	830
113	300	18.20	7.42	13.5	2.08	5.36	83.5	830
116	300	18.20	7.19	13.5		5.24	85.8	829
119	300	18.20	7.09	13.5		5.12	86.4	828
122	300	18.20	7.04	13.5		5.15	86.3	828
125	300	18.20	7.02	13.5		5.11	86.2	828

Analysis: VOCs / SVOCs / Metals / ETPH / Other- Cyan.-00
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other (NaOH
Pump: Bladder / Peristalic / Grunfos / Other-

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-448
Static Depth to Water (ft): 10.75
Depth to Bottom (ft): 20 / 19.55
Screen Interval: 10-20
Point of intake: 15

Well: MW-145
Date: 11-12-2018
Sample time: 1025
Sampler: WAC
Purged (gal): 1.2

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%)
935	100	10.75	6.26	15.55	1.26	0.72	231.7	3.08
940	100	10.75	6.24	15.36	1.81	0.52	255.3	3.05
945	100	10.78	6.24	15.85	1.92	0.50	283.5	3.02
950	100	10.78	6.23	15.93	2.05	0.66	262.7	2.99
955	100	10.78	6.24	15.91	2.58	0.58	258.3	2.98
1000	100	10.78	6.23	16.00	1.13	0.60	241.8	2.98
1005	100	10.78	6.23	16.23	0.78	0.63	230.2	2.97
1010	100	10.78	6.22	16.56	1.12	0.57	219.4	2.98
1015	100	10.78	6.22	16.53	1.42	0.54	215.2	2.98
1020	100	10.78	6.22	16.51	1.76	0.56	215.5	2.99

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

Color: None
Odor: None
Sheen: None

Turbidity:
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 10.39
Depth to Bottom (ft): 77 / 76.80
Screen interval: 10' 67-77
Point of intake: ~70

Well: MW-14D
Date: 11-12-2018
Sample time: 1235
Sampler: WAC
Purged (gal): ~5.15

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	200	10.39	6.29	14.11	3.88	0.02	71.9	0.59
1100	200	10.39	6.28	14.12	3.60	0.03	72.0	0.60
1105	300	10.40	6.25	13.81	5.01	0.10	73	0.60
1110	300	10.40	6.23	13.70	4.85	0.03	80.9	0.60
1115	300	10.40	6.23	13.73	5.63	0.01	88.5	0.60
1120	300	10.40	6.22	14.01	9.00	-0.00	89.6	0.60
1125	300	10.40	6.22	13.63	6.31	0	86.0	0.60
1130	300	10.40	6.22	13.54	5.41	0.05	84.7	0.61
1135	300	10.40	6.22	13.53	4.72	0.20	86.3	0.63
1140	300	10.40	6.24	13.51	2.63	0.62	90.4	0.65
1145	300	10.40	6.28	13.55	1.93	1.19	101.3	0.67
1150	300	10.40	6.30	13.48	1.76	1.42	108.8	0.69
1155	300	10.40	6.31	13.47	2.45	1.68	109.2	0.70
1200	300	10.40	6.33	13.52	2.12	1.75	112.4	0.71
1205	300	10.40	6.33	13.49	2.31	1.94	116.3	0.71
1210	300	10.40	6.35	13.58	0.87	2.13	121.2	0.72
1215	300	10.40	6.39	13.55	1.42	2.50	121.0	0.72
1220	300	10.40	6.38	13.55	1.22	2.61	123.5	0.73
1225	300	10.40	6.38	13.54	0.37	2.60	125.6	0.73
1230	300	10.40	6.38	13.55	0.76	2.67	127.4	0.73

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

Color: None / Clear
Odor: Petroleum
Sheen: Yes

Turbidity:
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 19.83
Depth to Bottom (ft): 83
Screen Interval: 72-82
Point of intake:

Well: MW-10
Date: 10-24-2015
Sample time: 14:30
Sampler: WAC
Purged (gal):

Time (3-5 min.)	Discharge/ Pumping rate (100-400 mL/min) Start A.S.a.m	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%)
153	~150	19.83	6.71	12.2		1.08	-33.1	249
156	~150	19.83	6.72	12.1		0.99		250.6
159	~150	19.84	6.74	12.2		0.87	-32.3	251.4
202	~150	19.85	6.74	12.2	0.64	0.82	-28.7	252.1
205	~150	19.85	6.74	12.2		0.77	-24.3	252.5
208	~150	19.84	6.74	12.2		0.76	-24.1	252.8
211	~150	19.84	6.73	12.2		0.77	-23.6	253.0
214	~150	19.84	6.73	12.2	0.98	0.76	-21.2	253.3
217	~150	19.85	6.73	12.2		0.74	-20.1	253.8
220	~150	19.85	6.75	12.2		0.71	-16.3	255.5
223	~150	19.85	6.75	12.2	0.87	0.70	-10.2	257.0
226	~150	19.85	6.75	12.2		0.69	-9.8	257.2
229	~150	19.85	6.74	12.2		0.68	-5.3	258.5

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

Color: NONE
Odor: No
Sheen: No

Turbidity:
Well Condition:
Repairs:

MW-Dup

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 15.51
Depth to Bottom (ft): NM
Screen interval: 14-24
Point of intake:

Well: 255
Date: 10-24-2018
Sample time: 1044
Sampler: WAC
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%)
1021	~200	15.51	7.81	14.4	1.35	6.65	170.7	53.5
1024	~200	15.52	7.92	15.2		5.68	195.6	54.3
1027	~200	15.52	7.90	15.5		5.51	203.2	54.4
1030	~200	15.52	7.82	15.7	1.23	5.41	213.7	54.5
1033	~200	15.52	7.75	16.2		5.17	219.0	54.6
1036	~200	15.53	7.71	16.5		5.19	222.5	54.3
1039	~200	15.52	7.56	16.6	1.83	5.11	229.5	54.1
1042	~200	15.52	7.44	16.6		4.99	233.9	54.0

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

Color: None
Odor: None
Sheen: None

Turbidity: ~1.5 NTU
Well Condition: Good
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 8.98
Depth to Bottom (ft): 150
Screen interval: 5-15
Point of intake: 12

Well: MW-26S
Date: 10-25-2018
Sample time: 835
Sampler: WAC
Purged (gal): 1

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)~~ µS/cm (<3%)
808	120	8.98	6.34	14.7	8.77	1.68	77.1	880
811	120	8.98	6.02	15.1		1.04	82.8	876
814	120	8.98	5.98	15.3	9.08	0.78	85.4	875
817	150	8.98	5.78	15.8		0.47	87.2	877
820	150	8.98	5.77	15.5	5.92	0.43	87.5	875
823	150	8.98	5.76	15.8		0.38	87.1	872
826	150	8.98	5.76	15.7	6.26	0.39	87.2	871
829	150	8.98	5.74	15.5		0.39	87.4	877
831	150	8.98	5.74	15.6	4.98	0.36	87.3	871

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

Color: _____
Odor: _____
Sheen: _____

Turbidity: _____
Well Condition: _____
Repairs: _____

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 10.42
Depth to Bottom (ft):
Screen interval: 60-74
Point of Intake:

Well: 26-D
Date: 10-25-18
Sample time: 10:30
Sampler: WAC
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%)
941	[illegible]	10.42	12.19	13.5	49.93	0.66	-24	716
944	300	10.42	12.28	13.4		0.27	-35.5	737
947	300	10.42	12.28	13.5	48.79	0.26	-36.5	737
950	300	10.44	12.29	13.4				736
953	300	10.45	12.30	13.4	32.65			736
956	300	10.45	12.29	13.4		0.26	-37.4	736
1000	300	10.45	12.29	13.3	17.19	0.25	-38.8	736
1003	300	10.45	12.29	13.3		0.24	-40.9	735
1006	300	10.45	12.27	13.4	7.47	0.22	-45.8	728
1009	300	10.45	12.21	13.3		.20	-50.4	703
1012	300	10.45	12.12	13.4		0.19	-55.1	689
1015	300	10.45	12.10	13.4	8.55	0.19	-52.7	681

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

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 9.69'
Depth to Bottom (ft): 74'
Screen interval: 10' (64-74)
Point of intake: ~66'

Well: MW-26D
Date: 11-12-2018
Sample time: 255
Sampler: WAC
Purged (gal): ~5.5

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%)
140	300	9.69	11.09	14.37	2.66	0.24	-26.6	0.53
145	300	9.71	11.11	14.14	2.27	0.29	-59.6	0.53
150	300	9.71	11.03	14.14	2.14	0.07	-79.4	0.52
155	300	9.71	10.97	14.17	8.38	0.06	-83.8	0.53
200	300	9.70	10.10	14.05	9.44	0.04	-85.0	0.52
205	300	9.71	9.52	14.05	8.18	0.03	-88.3	0.52
210	300	9.71	9.24	14.05	5.36	0.01	-94.1	0.51
215	300	9.70	9.15	14.01	4.66	0.01	-97.5	0.51
220	300	9.70	9.07	13.99	6.27	0.01	-106.3	0.50
225	300	9.70	8.76	14.01	5.18	0.00	-100.6	0.49
230	300	9.70	8.58	13.98	2.20	0.00	-91.2	0.49
235	300	9.70	8.27	14.00	3.88	0.00	-107.3	0.49
240	300	9.71	8.18	14.00	3.05	0.00	-104.1	0.48
245	300	9.71	8.12	13.93	3.78	0.00	-99.1	0.48
250	300	9.71	8.08	13.93	1.93	0.00	-94.5	0.48

Analysis: VOCs / (SVOCs) / Metals / ETPH / Other- PAH
Sample Containers: HCl voas ___ 1L unpres Ambers 4 HNO3 Plastic ___ Other Filtered / Unfiltered
Pump: Bladder / (Peristaltic) / Grunfos / Other-

Color: None / Clear
Odor: None
Sheen: None

Turbidity: ___
Well Condition: Good
Repairs: None

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 13.80
Depth to Bottom (ft):
Screen interval: 77-87
Point of intake:

Well: MW-26BR
Date: 10-25-2018
Sample time: 1140
Sampler:
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%)
1107	300	13.80	11.39	13.6		5.15	6.3	419.6
1110	300	13.79	11.39	13.6		5.18	5.7	417.6
1113	300	13.79	11.38	13.6	17.71	5.16	6.5	418.8
1116	300	13.79	11.35	13.5		5.18	10.7	418.2
1119	300	13.79	11.4	13.5		5.17	10.1	419
1122	300	13.01	11.38	13.4	14.60	5.35	12.3	418.1
1125	300	13.12	11.38	13.4		5.06	13.5	420.1
1128	300	13.15	11.39	13.4	16.67	4.93	14.4	419.8
1131	300	13.17	11.38	13.4		4.89	14.8	417.8
1134	300	13.25	11.37	13.3		4.77	17.9	416.8
1137	300	13.28	11.37	13.2	15.84	4.78	18.9	416.5
1140	300	13.35	11.37	13.3		4.78	18.8	416.6

Analysis: VOCs / SVOCs / Metals / ETPH / Other- NO
Sample Containers: HCl voas 3 1L unpres Ambers 3 HNO3 Plastic 1 Other 1 NAOH
Pump: Bladder / Peristaltic / Grunfos / Other-

Color:
Odor:
Sheen:

Turbidity:
Well Condition:
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 26.40
Depth to Bottom (ft): 34
Screen interval: 24-34
Point of Intake: 30'

Well: MW-07J
Date: 10/5/19
Sample time: 11:40
Sampler: AMC
Purged (gal): 4.75

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%)
10:15	250	26.45	6.28	12.2	236.4	6.47	211.4	641
10:20		26.47	6.27	11.9	614.0	6.44	217.4	641
10:25		26.45	6.27	11.8	842.7	6.76	222.3	642
10:30		26.45	6.25	11.7	547.9	6.76	225.1	642
10:35		26.45	6.25	11.9	379.5	6.62	226.1	641
10:40		26.45	6.26	12.2	243.1	6.77	226.3	642
10:45		26.45	6.26	12.1	142.3	6.45	227.0	642
10:50		26.45	6.26	12.1	154.2	6.43	224.0	641
10:55		26.45	6.27	12.0	164.2	6.11	224.1	641
11:00		26.45	6.27	11.7	144.4	6.25	224.6	643
11:05		26.45	6.26	11.9	164.0	6.24	224.5	644
11:10		26.45	6.23	11.4	79.60	6.24	224.1	643
11:15		26.45	6.25	11.4	54.23	6.21	224.6	642
11:20		26.45	6.25	11.9	31.94	6.24	224.1	643
11:25		26.45	6.24	11.9	15.61	6.19	230.8	643
11:30		26.45	6.25	11.9	8.34	6.30	233.7	642
11:35		26.45	6.24	11.9	4.29	6.17	231.7	643

Analysis: VOCs / SVOCs / Metals / ETPH / Other- TCN
Sample Containers: HCl voas 6 1L unpres Ambers 3 HNO3 Plastic 1 Other NWA
Pump: Bladder / Peristalic / Grunfos / Other-

Color: no
Odor: no
Sheen: no

Turbidity: low
Well Condition: normal
Repairs: no

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 29.04
Depth to Bottom (ft): 37'
Screen Interval: 27-37'
Point of intake: 33'

Well: MW-24S
Date: 10/25/24
Sample time: 9:10
Sampler: MPC
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%)
9:35	300	29.04	6.17	12.1	901.4	8.44	157.3	433
9:40	300	29.04	5.89	12.2	554.3	8.50	142.4	876
9:45	300	29.04	5.91	12.3	137.0	8.66	146.4	843
9:50	300	29.04	5.77	12.1	36.74	8.56	206.6	967
9:55	300	29.04	5.75	12.0	15.21	8.52	215.6	966
9:00	300	29.04	5.73	12.1	6.24	8.49	221.5	965
9:05	300	29.04	5.72	12.1	3.90	8.49	223.3	959

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

Color: Clear
Odor: none
Sheen: none

Turbidity: low
Well Condition: good
Repairs: none

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 7.23
Depth to Bottom (ft): 12
Screen interval: 9.5 (2-12)
Point of intake:

Well: MW-305
Date: 10-24-2018
Sample time: 1226
Sampler: WAC
Purged (gal): ~1 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%)
1201	125	7.23	7.67	17.2		7.21	-7.2	206.9
1204	125	7.23	5.95	17.4		0.90	-6.0	84.7
1207	125	7.23	5.88	17.4	2.31	0.84	-6.4	206.5
1210	125	7.23	5.85	17.5		0.65	-6.4	206.8
1213	125	7.23	5.81	17.5		0.45	-6.5	207.3
1216	125	7.23	5.77	17.5		0.43	-6.6	207.3
1219	125	7.23	5.73	17.2		0.38	-6.8	206.7
1221	125	7.23	5.72	17.5	0.48	0.36	-7.1	207.4

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

Color: None
Odor: Yes
Sheen: None

Turbidity:
Well Condition: Good
Repairs:

Low-Flow Data Sheet

Project Name: Rockville MGP
Project Number: E-0755-44B
Static Depth to Water (ft): 6.70
Depth to Bottom (ft): 17
Screen interval: Bottom 10'
Point of intake: 9

Well: MW-305
Date: 11-12-2018
Sample time: ~~415~~ 420
Sampler: WAC
Purged (gal): ~1.6

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%)
335	100	6.70	6.11	15.06	2.82	1.85	37.4	0.20
340	150	6.70	5.99	15.41	1.56	0.56	30.2	0.20
345	150	6.72	5.97	15.60	0.38	0.34	25.5	0.20
350	150	6.73	5.96	15.84	0.28	0.24	13.7	0.21
355	150	6.74	5.95	16.10	0.33	0.12	-6.5	0.21
400	150	6.74	5.95	16.13	1.10	0.10	-8.9	0.21
405	150	6.74	5.94	16.14	0.22	0.10	-17.4	0.21
410	150	6.73	5.95	16.14	0.01	0.09	-20.2	0.21
415	150	6.74	5.95	16.15	0.07	0.07	-23.5	0.21

Analysis: VOCs / SVOCs / Metals (ETPH) / Other- PAH
Sample Containers: HCl voas ____ 1L unpres Ambers 6 HNO3 Plastic ____ Other Filtered / Unfiltered
Pump: Bladder / Peristalic / Grunfos / Other-

Color: Clear w/ Orange bacterial growth
Odor: Petroleum
Sheen: None
Turbidity: ____
Well Condition: Good
Repairs: None

LNAPL GAUGING FORM

Site: Rockville MGP
Date: 10/9/24
Personnel: BPC
Weather: 50° clear

Well ID	Depth to Product (ft)	Depth to Water (ft)
MW-1S	—	24.96
MW-1D	—	24.80
MW-2S	—	Dry
MW-2SR	—	7.43
MW-2D	—	9.91
MW-2BR	—	9.59
MW-3S	—	15.07
MW-3D	—	17.08
MW-3BR	—	17.37
MW-4S	—	13.54
MW-4D	—	13.30
MW-5S	—	6.05
MW-5D	—	9.73
MW-6S	—	10.49
MW-6D	—	12.14
MW-7S	—	27.20
MW-7D	—	30.08
MW-8S	—	—
MW-8SR	—	6.71
MW-9S	—	15.09
MW-9D	—	19.37
MW-10S	—	20.17
MW-10SR	21.95	22.19
MW-10M	—	21.95
MW-10D	21.90	21.95
MW-10BR	—	20.01
MW-11S		12.21
MW-12S	—	11.99
MW-13S	—	17.99
MW-13D	—	19.17
MW-14S	—	11.97
MW-14D	—	11.17
MW-16S	—	11.21
MW-17S	—	10.51
MW-18D	—	14.99
MW-19S	—	17.75
MW-20S	—	26.00
MW-21S	—	22.99
MW-23S	—	23.85
MW-24S	—	21.67
MW-25S	—	15.51
MW-26S	—	9.96
MW-26D	—	10.90
MW-26BR	—	10.37
MW-27S	—	26.90
MW-28S	—	29.06
MW-30S	—	7.27
PZ-1A	—	6.51
PZ-1BR	—	6.98
PZ-2A	—	2.90
PZ-2B	—	1.64
PZ-2BR	—	2.65
PZ-3A	—	4.39
PZ-3BR	—	3.44

Comments:
mw-3BR measured from stickup pipe - PVC to deep * = SP odor on probe
mw-4SR - 13.52
11D: 11.95 12D: 11.73

Ter on probe in mw-2D, mw-10SR, mw-10D, mw-10M, mw-20S. No measurable thickness except for mw-10SR

Tighe&Bond

APPENDIX D

TABLE 6
Summary of Laboratory Quality Control Data
Rockville Former MGP Site
13 Maple Street
Rockville, Connecticut

Laboratory Report ID	Batch Group	Lab Sample ID	Sample ID	Media	Compound	QA/QC Description	Result Bias	Target Range	Result %	Detected in Sample	DUE Consideration
GCA48712	430854	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR, TRIP BLANK	GW	Acetone	Low LCS Recovery	None	70-130	61	No	None
	430789	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR	GW	2-Nitroaniline	High LCS/LSCD Recovery	None	30-130	134/145	No	None
	430789	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR	GW	Pyridine	Low LCS/LSCD Recovery	Low	30-130	18/20	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	430789	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR	GW	Aniline, Benzidine	Low LCS/LSCD Recovery	Low	30-130	<10/30 10/16	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	430789	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR	GW	1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 4-Chloroaniline, N-Nitrosodimethylamine	High LCS/LCSD RPD	None	20	23.9 23.1 21 66.7 24	No	None
	430854	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR, TRIP BLANK	GW	Acetone	High LCS/LCSD RPD	None	30	31.7	No	None
	431026	CA48712, CA48713, CA48714, CA48715, CA48716, CA48717	MW-17S, MW-5S, MW-5D, MW-8SR, MW-2SR, MW-2BR	GW	Cyanide	High MS Recovery	High	90-110	112	No	None
GCA51710	431609	CA51710	MW-4S	GW	Pentachlorophenol	High LCSD Recover	None	30-130	136	No	None
	431609	CA51710	MW-4S	GW	3,3''-Dichlorobenzidine	High LCSD Recovery	None	30-130	20	No	None
	431761	CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719	MW-4D, MW-6S, MW-6D, MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-DUP	GW	2-Nitroaniline	High LCSD Recovery	None	30-130	131	No	None
	431761	CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719	MW-4D, MW-6S, MW-6D, MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-DUP	GW	Aniline, Benzidine	Low LCS/LSCD Recovery	low	30-130	<10/<10 <10/<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	431761	CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719	MW-4D, MW-6S, MW-6D, MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-DUP	GW	Hexachlorocyclopentadiene	High LCS/LCSD RPD	None	20	20.9	No	None
	431609	CA51710	MW-4S	GW	2-Nitrophenol, 3,3''-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitrophenol, Bis(2-chloroisopropyl)ether	High LCS/LCSD RPD	None	20	23 131.6 29.6 50 21.7 21.7	No	None
	431609	CA51710	MW-4S	GW	% 2,4,6-Tribromophenol, % 2-Fluorobiphenyl, % 2-Fluorophenol	High LCS/LCSD RPD	Variability	20	31.1 22 25.9	SVOCs (No) Surrogates (Yes)	Variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	431761	CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719	MW-4D, MW-6S, MW-6D, MW-11S, MW-11D, MW-12S, MW-12D, MW-16S, MW-DUP	GW	4-Chloroaniline, Benzoic acid	High LCSD Recovery	None	20	20.6 32.1	No	None
	431609	CA51710	MW-4S	GW	%2,4,6-Tribromophenol	High Surrogate Recovery	High	15-110	112	SVOCs (No) Surrogates (Yes)	A high bias is possible; however, SVOCs were not reported in MW-4S at concentrations above laboratory reporting limits.
GCA58993	NA	CA59001	MW-14D	GW	CT ETPH	Poor surrogate recovery	Low	50-150	31	Yes	A slight low bias is possible. CT ETPH was reported at 160 ug/L. Applicable criteria is 250 ug/L.
	432381	CA58993, CA58994, CA58995, CA58996	MW-1S, MW-1D, MW-3S, MW-7S	GW	Bromomethane	High LCS/LSCD	None	70-130	141/134	No	None
	432677	CA58997, CA58998, CA59003	MW-9S, MW-19S, MW-9D	GW	2-Hexanone, 4-Methyl-2-pentanone, Acetone	Low LCS or LSCD Recovery	None	70-130	69 66 66	No	None
	432677	CA58997, CA58998, CA59003	MW-9S, MW-19S, MW-9D	GW	Dichlorodifluoromethane	Low LCS Recovery	None	70-130	65	No	None
GCA61339	432741	CA61339, CA61340, CA61341, CA61342	MW-3BR, MW-18D, MW-23S, MW-10BR	GW	Naphthalene	Lab Blank Contamination	High	ND<0.02	0.04	Yes	A high bias is likely; however, naphthalene was not reported near the applicable criteria in the four samples.
	433222	CA61339, CA61340, CA61341	MW-3BR, MW-18D, MW-23S	GW	Bromomethane	High LCS/LSCD	None	70-130	137/145	No	None
	433254	CA61342, CA61343, CA61344	MW-10BR, EQ BLANK, TRIP BLANK	GW	Acetone	Low LCS/LSCD Recovery	Low	70-130	55/55	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	433113	CA61343	EQ BLANK	GW	Benzyl butyl phthalate	Low LCSD Recovery	None	30-130	24	No	None
	433254	CA61342, CA61343, CA61344	MW-10BR, EQ BLANK, TRIP BLANK	GW	Dichlorodifluoromethane	Low LCSD Recovery	None	70-130	136	No	None
	433254	CA61342, CA61343, CA61344	MW-10BR, EQ BLANK, TRIP BLANK	GW	Methyl ethyl ketone, Tetrahydrofuran (THF)	Low LCSD Recovery	Low	70-130	59 69	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	432741	CA61339, CA61340, CA61341, CA61342	MW-3BR, MW-18D, MW-23S, MW-10BR	GW	1,2-Dichlorobenzene, 1,3-Dichlorobenzene, N-Nitrosodimethylamine, % 2-Fluorophenol	High LCS/LCSD RPD	Variability	20	21.3 20.7 21.1 26.1	No	Variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	433113	CA61343	EQ BLANK	GW	1,2-Diphenylhydrazine, Benzoic acid, Benzyl butyl phthalate, NNitrosodiphenylamine, % Phenol-d5	High LCS/LCSD RPD	Variability	20	84.5 43.7 110.3 23.6 70.4	No	Slight variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	433113	CA61343	EQ BLANK	GW	Benzo(a)pyrene, % Phenol-d5	High LCS/LCSD RPD	Variability	20	43 56.7	No	Slight variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCA61367	433254	CA61367	MW-7D	GW	Acetone	Low LCS/LSCD Recovery	Low	70-130	55/55	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	433254	CA61367	MW-7D	GW	Dichlorodifluoromethane	High LCS/LSCD	None	70-130	136	No	None
	433254	CA61367	MW-7D	GW	Methyl ethyl ketone, Tetrahydrofuran (THF)	Low LCS/LSCD	None	70-130	59 69	No	None
	433113	CA61367	MW-7D	GW	Benzyl butyl phthalate	Low LCSD Recovery	Low	30-130	24	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	433113	CA61367	MW-7D	GW	1,2-Diphenylhydrazine, Benzoic acid, Benzyl butyl phthalate, NNitrosodiphenylamine, % Phenol-d5	High LCS/LCSD RPD	Variability	20	84.2 43.7 110.3 23.6 70.4	No	Slight variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	433113	CA61367	MW-7D	GW	Benzo(a)pyrene, % Phenol-d5	High LCS/LCSD RPD	None	20	43 56.7	No	None

TABLE 6
Summary of Laboratory Quality Control Data
Rockville Former MGP Site
13 Maple Street
Rockville, Connecticut

Laboratory Report ID	Batch Group	Lab Sample ID	Sample ID	Media	Compound	QA/QC Description	Result Bias	Target Range	Result %	Detected in Sample	DUE Consideration
GCB82836	454143	CB82838	MW-10BR	GW	Benzidine	Low LCS Recovery	Low	30-130	<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	454275	CB82836, CB82837, CB82838, CB82839, CB82852	MW-4SR, MW-25S, MW-10BR, MW-30S, TRIP BLANK	GW	Tetrahydrofuran (THF)	Low LCS Recovery	None	70-130	69	No	None
	453740	CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851	MW-4SR, MW-25S, MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D, MW-27S, MW-26BR, MW-13D, MW-7D, MW-DUP, EQ BLANK	GW	Hexachloroethane, Pyridine	Low LCS/LCSD Recovery	Low	30-130	18/24 18/17	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	454143	CB82838	MW-10BR	GW	Hexachlorocyclopentadiene	Low LCS/LCSD Recovery	Low	30-130	28/29	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	453740	CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851	MW-4SR, MW-25S, MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D, MW-27S, MW-26BR, MW-13D, MW-7D, MW-DUP, EQ BLANK	GW	Hexachlorocyclopentadiene, Pyridine	Low LCSD recovery	Low	30-130	27 29	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	454467	CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845	MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D	GW	4-Methyl-2-pentanone, Acetone, Chloromethane, Dichlorodifluoromethane, Tetrahydrofuran (THF)	Low LCSD Recovery	Low	70-130	67 62 62 55 64	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	453740	CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851	MW-4SR, MW-25S, MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D, MW-27S, MW-26BR, MW-13D, MW-7D, MW-DUP, EQ BLANK	GW	2,4-Dinitrophenol, N-Nitrosodimethylamine	Low LCSD recovery	Low	30-130	15 23	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	453740	CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851	MW-4SR, MW-25S, MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D, MW-27S, MW-26BR, MW-13D, MW-7D, MW-DUP, EQ BLANK	GW	1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4-Dinitrophenol, 3,3'-Dichlorobenzidine 4,6-Dinitro-2-methylphenol, 4-Chloroaniline, Benzidine, Benzo(ghi)perylene, Dibenz(a,h)anthracene, Hexachlorocyclopentadiene, Hexachloroethane, N-Nitrosodimethylamine	High LCS/LCSD RPD	Variability	20	25 33.8 30 110.4 27.6 70.6 28.6 66.7 21.9 20.9 28.6 31.6 29.6	No	Slight variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	454143	CB82838	MW-10BR	GW	3,3''-Dichlorobenzidine, Benzoic acid	High LCS/LCSD RPD	None	20	27.5 56.8	No	None
	453740	CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851	MW-4SR, MW-25S, MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D, MW-27S, MW-26BR, MW-13D, MW-7D, MW-DUP, EQ BLANK	GW	Hexachloroethane, % 2-Fluorophenol	High LCS/LCSD RPD	None	20	25.8 33.3	No	None
	454143	CB82838	MW-10BR	GW	2-Methylnaphthalene, Pyridine	High LCS/LCSD RPD	None	20	26.3 24	No	None
	454467	CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845	MW-30S, MW-3BR, MW-18D, MW-13S, MW-26S, MW-28S, MW-26D	GW	Dichlorodifluoromethane	High LCS/LCSD RPD	None	30	32.1	No	None
GCB96386	456271	CB96386, CB96501	MW-14D, TRIP BLANK	GW	2,2-Dichloropropane, Dichlorodifluoromethane	High LCS/LCSD Recovery	None	70-130	141/143 165/168	No	None
	456620	CB96386, CB96387	MW-14D, TRIP BLANK	GW	2,2-Dichloropropane, Dichlorodifluoromethane, Trichlorofluoromethane	High LCS/LCSD Recovery	None	70-130	96/139 139/161 136/136	No	None
	456158	CB96386, CB96387, CB96388, CB96389, CB96390, CB96391	MW-14D, MW-14S, MW-26D, MW-26D FILTERED, MW-30S, MW-30S FILTERED	GW	% Nitrobenzene-d5	Low LCSD Recovery	None	30-130	28	Yes	None
	456158	CB96386, CB96387, CB96388, CB96389, CB96390, CB96391	MW-14D, MW-14S, MW-26D, MW-26D FILTERED, MW-30S, MW-30S FILTERED	GW	% Nitrobenzene-d5	Low Surrogate Recovery	Low	30-13	22	Yes	A low bias for SVOCs is possible; however, results were consistent with previous sampling events. Four of the six samples had SVOCs at concentrations above applicable criteria, the remaining two samples did not have SVOCs reported at concentrations above laboratory reporting limits
GCA91708	439411	CA91708	SB-33 5-7FT	Soil		Lab Blank Contamination	High	ND<0.3	0.64	Yes	A slightly high bias is possible; however, the sample result was below criteria
	439334	CA91708	SB-33 5-7FT	Soil	CT ETPH	Low Surrogate Recovery	None	60-120	53	Yes	None
	439719	CA91714, CA91715, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	2-Hexanone, Methyl ethyl ketone, Methylene chloride	Low LCSD Recovery	None	70-130	66 61 68	No	None
	439785	CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	2,4-Dinitrophenol	Low LCS/LCSD	Low	60-120	10/<10	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439785	CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	4,6-Dinitro-2-methylphenol	Low LCS/LCSD	Low	30-130	23/15	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439785	CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	4,6-Dinitro-2-methylphenol	High LCS/LCSD RPD	None	30	60.5	No	None
	440641	CA91711, CA91712	SB-36 2-4 FT, SB-37 2-4 FT	Soil	Anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, Indeno(1,2,3-cd)pyrene, % 2-Fluorobiphenyl, % Nitrobenzene-d5, % Terphenyl-d14	High LCS/LCSD RPD	Variability	30	32.3, 30.9, 31.3, 30.9, 31.6, 46.4, 38.4, 49.1	Yes No	Variability in sample results is possible; however, results appear consistent with nearby samples.
	439785	CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	Benzoic Acid	Low LCS/LSCD and Low MS/MSD recovery	Low	30	<10/<10 <10/<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	439785	CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	Pyridine	Low LCS/LSCD and Low MS/MSD recovery	Low	30	27/29 29/23	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	439719	CA91714, CA91715, CA91719, CA91720, CA91721	SB-42 2-4 FT, SB-41 1-3 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	Acetone	Low LCS/LSCD and Low MS/MSD recovery	Low	70-130	61/54 65/64	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439968	CA91708, CA91709, CA91714, CA91719, CA91720, CA91721	SB-33 5-7FT, SB-34 2-4 FT, SB-42 2-4 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	Acetone	Low LCS/LSCD and Low MS/MSD recovery	Low	70-130	68/70 59/68	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	Surrogate	CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721	SB-34 2-4 FT, SB-42 2-4 FT, SB-41 1-3 FT, SB-47 2-4 FT, SB-44 1-3 FT, SB-45 0-2 FT, SB-65 1-3 FT	Soil	Mercury	High Sample/Duplicate RPD	Variability	30	48.4	Yes	Variability in sample results is possible; however, results appear consistent with nearby samples.

TABLE 6
Summary of Laboratory Quality Control Data
Rockville Former MGP Site
13 Maple Street
Rockville, Connecticut

Laboratory Report ID	Batch Group	Lab Sample ID	Sample ID	Media	Compound	QA/QC Description	Result Bias	Target Range	Result %	Detected in Sample	DUE Consideration
GCA94064	439640	CA94064	SB-46 (5-7 FT)	Soil	2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Pyridine	Low LCS	Low	30-130	<10/<10 19/25 29/-	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439590	CA94064, CA94067	SB-46 (5-7 FT), SB-35 (5-7 FT)	Soil	% DCBP Surrogate Rec	High LCS/LCSD RPD	None	30	37	Surrogate: Yes	Variability in PCB sample results is possible; however, results appear consistent with nearby samples.
	439640	CA94064	SB-46 (5-7 FT)	Soil	Benzoic Acid	Low LCS/LSCD and Low MS/MSD recovery	Low	30	<10/<10 <10/<10	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439971	CA94069	SB-38 (5-7 FT)	Soil	Acetone, Methyl ethyl ketone	Low LCS/LSCD and Low MS/MSD recovery	Low	70-130	55/57 50/50 67/65 64/65	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	439979	CA94064, CA94065, CA94067	SB-46 (5-7 FT), SB-47 (11-13 FT), SB-35 (5-7 FT)	Soil	Acetone	Low LCS/LSCD and Low MS/MSD recovery	Low	70-130	55/57 50/50	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
	440153	CA94064, CA94067	SB-46 (5-7 FT), SB-35 (5-7 FT)	Soil	Trichlorofluoromethane	High MS/MSD Recovery	Variability	30 70-130	MSD: 62 RPD: 39	No	Variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	439657	CA94064, CA94067, CA94069	SB-46 (5-7 FT), SB-35 (5-7 FT), SB-38 (5-7 FT)	Soil	Arsenic, Nickel	High Sample/Duplicate RPD	Variability	30	46.4/43.6	Yes	Variability in sample results is possible. Arsenic was reported in SB-46, SB-36, and SB-38 within ±9 mg/kg of criteria (18.5, 14.8, and 3.86 mg/Kg, receptively). Nickel was reported in the three samples well below criteria.
GCA95004	439944	CA95004	SB-44 (10-12`)	Soil	Mercury	Low LCS/LSCD Recovery	None	80-120	79.4	No	None
	439997	CA95004	SB-44 (10-12`)	Soil	4,6-Dinitro-2-methylphenol	Low LCS/LSCD Recovery	None	30-130	17/30	No	None
	439997	CA95004	SB-44 (10-12`)	Soil	4,6-Dinitro-2-methylphenol	High LCS/LCSD RPD	None	30	55.3	No	None
	439997	CA95004	SB-44 (10-12`)	Soil	2,4-Dinitrophenol, Aniline, Benzoic Acid	Low LCS/LSCD and Low MS/MSD recovery	Low	30-130	<10/19	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	439941	CA95004, CA95005, CA95006, CA95007, CA95008	SB-44 (10-12`), HA-10 (2-2.5`), HA-11 (1-2`)	Soil	Mercury	High Sample/Duplicate RPD	Variability	30	92.5	Yes	Variability in the sample results is possible; however, results were consistent with other samples and were well below applicable criteria.
	439805	CA95004, CA95005, CA95006, CA95007	SB-44 (10-12`), HA-10 (2-2.5`), HA-11 (1-2`)	Soil	Barium, Copper, Lead	High sample/duplicate RPD	Variability	30	63.1 46.8 42.6	Yes	Variability in the sample results is possible; however, results were consistent with other samples and were well below applicable criteria.
GCA96212	440138	CA96213, CA96214, CA96215, CA96216	SB-51 (10-11 FT), SB-50 (2-4 FT), SB-32 (2-4 FT), SB-48 (2-4 FT)	Soil	Methyl ethyl ketone	Low LCS and Batch MS/MSD recovery	Slightly Low	70-130	66 66/65	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCA98174	440548	CA98174	SB-43 (0.5-2FT)	Soil	2,4-Dinitrophenol	Low LCS/LSCD Recovery	Low	30-130	15/11	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	440548	CA98174	SB-43 (0.5-2FT)	Soil	Benzoic Acid	Low LCS/LSCD Recovery	Low	30-130	<10/<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	440548	CA98174	SB-43 (0.5-2FT)	Soil	4,6-Dinitro-2-methylphenol	Low LSCD Recovery	None	30-130	29	No	None
	440548	CA98174	SB-43 (0.5-2FT)	Soil	2,4-Dinitrophenol, Benzidine	High LCS/LCSD RPD	None	30	30.8 31.3	No	None
	440548	CA98174	SB-43 (0.5-2FT)	Soil	Pyridine	The QC recovery is below the lower range but within the method criteria. A low bias for this analyte is possible.	Low	30-130	26/23 32/28	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
GCA98805	440584	CA98805	SB-31 (1-3 FT)	Soil	2,4-Dinitrophenol, Benzoic Acid	Low LCS/LCSD Recovery	Low	30-130	12/<10 <10/<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	440584	CA98807, CA98809	SB-30 (2-4 FT), SB-28 (1-3 FT)	Soil	4,6-Dinitro-2-methylphenol	Low LSCD Recovery	None	30-130	23	No	None
	440922	CA98807, CA98809, CA98810	SB-30 (2-4 FT), SB-28 (1-3 FT), SB-28 (22-24 FT)	Soil	Acetone	Low LSCD Recovery	None	30-130	65	No	None
	441761	CA98805	SB-31 (1-3 FT)	Soil	Methoxychlor	High MS/MSD RPD Recovery	Variability	30	56.1	No	Variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
	440577	CA98805, CA98807, CA98809	SB-31 (1-3 FT), SB-30 (2-4 FT), SB-28 (1-3 FT)	Soil	Chromium, Copper, Nickel	High sample/duplicate RPD	Variability	30	47.9 43.1 50.8	Yes	Variability in the sample results is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCA99810	441925	CA99810	SB-29 (3-5 FT)	Soil	4,6-Dinitro-2-methylphenol	Low LCS Recovery	None	30-130	19	No	None
	441925	CA99810	SB-29 (3-5 FT)	Soil	2,4-Dinitrophenol	Low LCS/LSCD Recovery	Low	30-130	<10/17	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	441925	CA99810	SB-29 (3-5 FT)	Soil	4,6-Dinitro-2-methylphenol	High LCS/LCSD RPD	None	30	66.7	No	None
	441911	CA99813	SB-59 (22-24 FT)	Soil	Acetone	Low LCS and Batch MS/MSD recovery	Low	70-130	69 59/50	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	441925	CA99810	SB-59 (22-24 FT)	Soil	Benzidine, Benzoic Acid	Low LCS/LSCD and Low MS/MSD recovery	Low	30-130	55/55 23/34 <10/10 <10/22	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
	441911	CA99813	SB-59 (22-24 FT)	Soil	2-Hexanone	Low MSD Recovery	None	70-130	69	No	None
GCB01074	No Issues			Soil							
GCB15818	444065	CB15818, CB15819, CB15820	SB-62 (31-33FT), SB-61 (23-25FT), DUP-101	Soil	CT ETPH	Low LCS recovery	None	60-120	59	No, Yes, No	None
	444794	CB15819	SB-61 (23-25FT)	Soil	Acetone	Low LCS and Batch MS/MSD recovery	Low	70-130	68 60/60	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCB17425	444516	CB17429	SB-60 (40-42 FT)	Soil	CT ETPH	High LCS/LCSD RPD	None	30	31	No	None
GCB20628	445221	CB20630, CB20631, CB20632, CB20633	SB-40A (5.5-7.5 FT), SB-39 (3-5 FT), SB-53 (3-5 FT), DUP-102	Soil	Barium	High sample/duplicate RPD	Variability	30	33.5	Yes	Variability in the sample results is possible; however, results were consistent with other samples and were well below applicable criteria.
GCB22894	No Issues			Soil							
GCB62410	449891	CB62410	SB-63 (35-37FT)	Soil	Acetone	Low LCS/LSCD and Low MS/MSD recovery	Low	70-130	61/58 58/65	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCB72216	No Issues			Soil							
GCB20634	445221	CB20634, CB20635, CB20636, CB20637, CB20638, CB20639, CB20640	SED-07, SED-08, SED-09, SED-06A, SED-06B, SED-06C, SED-DUP-1	Sed	Barium	High sample/duplicate RPD	Variability	30	33.5	Yes	Variability in the sample results is possible
GCB20634	445176	CB20634, CB20635, CB20636, CB20640	SED-07, SED-08, SED-09, SED-DUP-1	Sed	2,4-Dinitrophenol	Low LCS/LSCD Recovery	Low	30-130	11/14	No	A slightly low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits
GCB20634	445176	CB20634, CB20635, CB20636, CB20640	SED-07, SED-08, SED-09, SED-DUP-1	Sed	Benzoic Acid	Low LCS/LSCD Recovery	Low	30-130	<10/<10	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
GCB20634	445176	CB20634, CB20635, CB20636, CB20640	SED-07, SED-08, SED-09, SED-DUP-1	Sed	4,6-Dinitro-2-methylphenol	Low LCS Recovery	None	30-130	24	No	None
GCB20634	445176	CB20634, CB20635, CB20636, CB20640	SED-07, SED-08, SED-09, SED-DUP-1	Sed	4,6-Dinitro-2-methylphenol	High LCS/LCSD RPD	None	30	31.6	No	None
GCB20634	445496	CB20634, CB20635, CB20640	SED-07, SED-08, SED-DUP-1	Sed	Acetone	Low MS/MSD Recovery	Low	70-130	69/62	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.
GCB20634	445686	CB20636	SED-09	Sed	Acetone	Low LCSD and Batch MS/MSD recovery	Low	70-130	67 64/64	No	A low bias is possible; however, the parameter was consistently not detected above laboratory reporting limits.

Notes
LCS - Laboratory Control Sample
LCSD - LCS Duplicate
MS - Matrix Spike
MSD - MS Duplicate
RPD - Relative Percent Difference

2018

SOIL LABORATORY

ANALYTICAL DATA

PHOENIX
Environmental Laboratories, Inc.

Tuesday, July 31, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA91708 - CA91709, CA91711 - CA91712, CA91714 - CA91715, CA91717, CA91719 - CA91721

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

July 31, 2018

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:		07/17/18	13:40
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91708

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 1.8	1.8	mg/Kg	1	07/19/18	EK	SW6010C	
Arsenic	22.4	0.67	mg/Kg	1	07/19/18	EK	SW6010C	
Barium	66.6	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Beryllium	0.33	0.27	mg/Kg	1	07/19/18	EK	SW6010C	
Cadmium	0.44	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Chromium	13.8	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Copper	34.2	0.34	mg/kg	1	07/19/18	EK	SW6010C	B
Mercury	0.04	0.03	mg/Kg	1	07/19/18	RS	SW7471B	
Nickel	11.0	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Lead	55.5	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Antimony	< 3.4	3.4	mg/Kg	1	07/19/18	EK	SW6010C	
Selenium	< 2.1	2.1	mg/Kg	1	07/19/18	EK	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/19/18	EK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/19/18	TH	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/19/18	TH	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Copper	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/19/18	RS	SW7470A	
SPLP Nickel	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Lead	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Antimony	< 0.02	0.02	mg/L	1	07/19/18	EK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	07/19/18	TH	SW6010C	
SPLP Thallium	< 0.005	0.005	mg/L	1	07/19/18	TH	SW6010C	
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Zinc	0.015	0.010	mg/L	1	07/19/18	EK	SW6010C	
Thallium	< 3.0	3.0	mg/Kg	1	07/19/18	EK	SW6010C	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/19/18	IQ/I	SW3010A
Vanadium	31.5	0.34	mg/Kg	1	07/19/18	EK	SW6010C
Zinc	38.1	0.34	mg/Kg	1	07/19/18	EK	SW6010C
Percent Solid	95		%		07/18/18	W	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.55	0.48	mg/Kg	1	07/19/18	EG	SW9012B
Soil Extraction for PCB	Completed				07/19/18	JA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/18/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/18/18	NTJ/V	SW3545A
Mercury Digestion	Completed				07/19/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/19/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/18/18	I	SW1312
Total Metals Digest	Completed				07/18/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1400	260	mg/Kg	5	07/19/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/19/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	133		%	5	07/19/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	98		%	10	07/21/18	AW	30 - 150 %
% TCMX	103		%	10	07/21/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/19/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
4-Chlorotoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	220	200	ug/Kg	50	07/19/18	JLI	SW8260C
Bromobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	3.6	3.3	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Isopropylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
m&p-Xylene	19	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	640	360	ug/Kg	50	07/19/18	JLI	SW8260C
n-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
n-Propylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
o-Xylene	22	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
sec-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Styrene	5.3	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	400	360	ug/Kg	50	07/19/18	JLI	SW8260C
Total Xylenes	41.0	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	720	ug/Kg	50	07/19/18	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	50	07/19/18	JLI	70 - 130 %
% Bromofluorobenzene	101		%	50	07/19/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/20/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	1900	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Acenaphthene	ND	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Acenaphthylene	2800	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Anthracene	1400	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Benz(a)anthracene	2700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(a)pyrene	4700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(b)fluoranthene	3800	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(ghi)perylene	10000	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(k)fluoranthene	2200	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Chrysene	3700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Dibenz(a,h)anthracene	1700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Fluoranthene	3300	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Fluorene	ND	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	11000	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Naphthalene	1300	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Phenanthrene	4000	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Pyrene	7000	1200	ug/Kg	5	07/19/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	56		%	5	07/19/18	KCA	30 - 130 %
% Nitrobenzene-d5	57		%	5	07/19/18	KCA	30 - 130 %
% Terphenyl-d14	52		%	5	07/19/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

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:

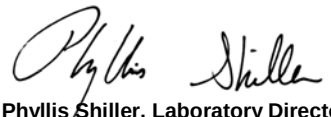
Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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



Phyllis Shiller, Laboratory Director
July 31, 2018
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

July 31, 2018

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:		07/16/18	11:10
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91709

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	15.4	0.79	mg/Kg	1	07/21/18	EK	SW6010C
Barium	69.2	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.86	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	16.4	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Copper	32.0	0.39	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.36	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	10.9	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Lead	79.4	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	0.016	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	0.013	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.015	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	20.6	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	48.2	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	86		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.39	0.58	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/27/18	BA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	NTJ/V	SW3545A
Extraction of CT ETPH	Completed				07/19/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4800	290	mg/Kg	5	07/20/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/20/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/20/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	57		%	10	07/30/18	AW	30 - 150 %
% TCMX	51		%	10	07/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	07/21/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	07/21/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	07/21/18	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Benzene	350	200	ug/Kg	50	07/20/18	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromodichloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromomethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Methylene chloride	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Naphthalene	2400	530	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrachloroethene	650	530	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Toluene	370	320	ug/Kg	50	07/20/18	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	07/21/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	07/21/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	07/21/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/21/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	4700	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Acenaphthylene	28000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Anthracene	14000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Benz(a)anthracene	28000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(a)pyrene	16000	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(b)fluoranthene	23000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	26000	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	19000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Chrysene	37000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	4400	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Fluoranthene	50000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Fluorene	5800	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	22000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Naphthalene	6900	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Phenanthrene	45000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Pyrene	110000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

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:

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
July 31, 2018
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

July 31, 2018

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:		07/16/18	13:40
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91711

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Arsenic	14.8	0.79	mg/Kg	1	07/28/18	EK	SW6010C
Barium	71.6	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Beryllium	1.38	0.32	mg/Kg	1	07/28/18	EK	SW6010C
Cadmium	1.41	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Chromium	19.0	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Copper	40.7	0.8	mg/kg	1	07/28/18	EK	SW6010C
Mercury	0.44	0.03	mg/Kg	1	07/30/18	RS	SW7471B
Nickel	12.6	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Lead	82.8	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/28/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/28/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Arsenic	0.005	0.004	mg/L	1	07/31/18	EK	SW6010C
SPLP Barium	0.019	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/31/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/30/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Lead	0.015	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/31/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Zinc	0.086	0.010	mg/L	1	07/31/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/28/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/30/18	IQ/I	SW3010A
Vanadium	36.5	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Zinc	140	0.8	mg/Kg	1	07/28/18	EK	SW6010C
Percent Solid	89		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	10.8	0.51	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/27/18	BA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/27/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BJ/VCK	SW3545A
Mercury Digestion	Completed				07/30/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/30/18	Q/I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/27/18	Q	SW1312
Total Metals Digest	Completed				07/27/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	280	270	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	5	07/30/18	AW	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	95		%	10	07/30/18	AW	30 - 150 %
% TCMX	84		%	10	07/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	200	170	ug/Kg	50	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	850	ug/Kg	50	07/28/18	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	50	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	94		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	570	260	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthylene	5300	260	ug/Kg	1	07/28/18	KCA	SW8270D
Anthracene	920	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benz(a)anthracene	730	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(a)pyrene	2000	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(b)fluoranthene	1400	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(ghi)perylene	2900	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(k)fluoranthene	1200	260	ug/Kg	1	07/28/18	KCA	SW8270D
Chrysene	1000	260	ug/Kg	1	07/28/18	KCA	SW8270D
Dibenz(a,h)anthracene	420	260	ug/Kg	1	07/28/18	KCA	SW8270D
Fluoranthene	820	260	ug/Kg	1	07/28/18	KCA	SW8270D
Fluorene	730	260	ug/Kg	1	07/28/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	2500	260	ug/Kg	1	07/28/18	KCA	SW8270D
Naphthalene	770	260	ug/Kg	1	07/28/18	KCA	SW8270D
Phenanthrene	430	260	ug/Kg	1	07/28/18	KCA	SW8270D
Pyrene	1600	260	ug/Kg	1	07/28/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	07/28/18	KCA	30 - 130 %
% Nitrobenzene-d5	59		%	1	07/28/18	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/28/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

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:

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.

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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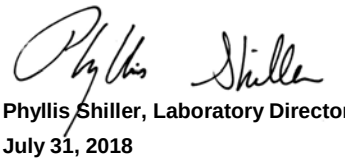

Phyllis Shiller, Laboratory Director
July 31, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

July 31, 2018

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:		07/16/18	14:00
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91712

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Arsenic	4.48	0.77	mg/Kg	1	07/28/18	EK	SW6010C
Barium	63.5	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Beryllium	0.58	0.31	mg/Kg	1	07/28/18	EK	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Chromium	19.7	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Copper	15.3	0.8	mg/kg	1	07/28/18	EK	SW6010C
Mercury	0.05	0.03	mg/Kg	1	07/30/18	RS	SW7471B
Nickel	10.8	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Lead	20.2	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/28/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/28/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	07/31/18	EK	SW6010C
SPLP Barium	0.013	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/31/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/30/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/31/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/28/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/30/18	IQ/I	SW3010A
Vanadium	35.8	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Zinc	38.8	0.8	mg/Kg	1	07/28/18	EK	SW6010C
Percent Solid	84		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/27/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BJ/VCK	SW3545A
Mercury Digestion	Completed				07/30/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/30/18	Q/I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/27/18	Q	SW1312
Total Metals Digest	Completed				07/27/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	59	mg/Kg	1	07/28/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/28/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	07/28/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
m&p-Xylene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
o-Xylene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	96		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(ghi)perylene	560	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Chrysene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Fluorene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	530	270	ug/Kg	1	07/28/18	KCA	SW8270D
Naphthalene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Phenanthrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Pyrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	34		%	1	07/28/18	KCA	30 - 130 %
% Nitrobenzene-d5	31		%	1	07/28/18	KCA	30 - 130 %
% Terphenyl-d14	31		%	1	07/28/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

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

Comments:

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
July 31, 2018
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

July 31, 2018

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:		07/16/18	14:45
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91714

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	28.5	0.72	mg/Kg	1	07/21/18	EK	SW6010C
Barium	92.0	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.35	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.38	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.5	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	21.5	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	8.87	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	44.6	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.027	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	24.7	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	70.6	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	90		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.89	0.56	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/19/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	140	54	mg/Kg	1	07/20/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/20/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	77		%	1	07/20/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	870	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	79		%	10	07/23/18	AW	30 - 150 %
% TCMX	71		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	470	360	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	1100	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	370	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	420	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	620	260	ug/Kg	1	07/21/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	570	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	1100	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	530	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	730	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	710	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	500	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	870	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	900	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	89		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	57		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	66		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	66		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	74		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

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:

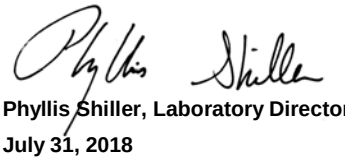
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

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

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
July 31, 2018
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

July 31, 2018

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:		07/16/18	15:35
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91715

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	6.81	0.79	mg/Kg	1	07/21/18	EK	SW6010C
Barium	75.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.57	0.32	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.47	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	17.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Copper	18.1	0.40	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.06	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.33	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Lead	30.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	27.9	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	80.6	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	79		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.63	0.63	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	53		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	84		%	10	07/23/18	AW	30 - 150 %
% TCMX	73		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	360	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	44	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	670	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	830	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	51		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	52		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	58		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	64		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	66		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

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

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

Comments:

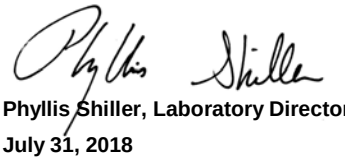
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

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

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

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

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



Phyllis Shiller, Laboratory Director
July 31, 2018
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

July 31, 2018

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:		07/17/18	7:35
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91717

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	1.93	0.75	mg/Kg	1	07/21/18	EK	SW6010C
Barium	49.4	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.35	0.30	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	12.0	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Copper	9.72	0.38	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	7.27	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Lead	13.4	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	0.011	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	23.1	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	20.8	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	91		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	10	07/23/18	AW	30 - 150 %
% TCMX	64		%	10	07/23/18	AW	30 - 150 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	370	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	400	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	730	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	860	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(b)fluoranthene	710	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	840	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	570	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	730	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	730	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	1700	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	810	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	1300	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	1600	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	63		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	58		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	65		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	64		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	63		%	1	07/21/18	KCA	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.

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
July 31, 2018
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

July 31, 2018

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:		07/17/18	9:45
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91719

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	6.66	0.72	mg/Kg	1	07/21/18	EK	SW6010C
Barium	81.2	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.43	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.42	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	12.1	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	29.0	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.54	0.13	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.28	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	31.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	30.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	74.4	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	89		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.82	0.51	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	140	55	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	82		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	10	07/23/18	AW	30 - 150 %
% TCMX	58		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	550	370	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	650	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	720	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	930	260	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	870	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	910	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	890	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	750	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	810	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	720	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	800	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	890	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	270	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	990	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	51		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	68		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	63		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	70		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

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:

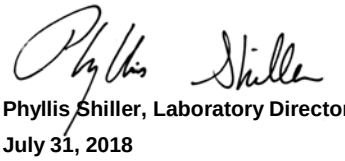
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

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



Phyllis Shiller, Laboratory Director
July 31, 2018
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

July 31, 2018

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:		07/17/18	11:00
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91720

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	2.23	0.82	mg/Kg	1	07/21/18	EK	SW6010C
Barium	76.3	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.54	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.41	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.6	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Copper	7.74	0.41	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	8.89	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Lead	5.52	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	29.1	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	28.9	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	81		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	62	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	89		%	10	07/23/18	AW	30 - 150 %
% TCMX	72		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
o-Xylene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	900	ug/Kg	50	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	50	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	820	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	56		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	63		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	60		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	76		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT
Phoenix I.D.: CA91720

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:
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.

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
July 31, 2018
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

July 31, 2018

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:		07/17/18	11:50
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91721

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	3.17	0.73	mg/Kg	1	07/21/18	EK	SW6010C
Barium	76.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.49	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	47.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	22.6	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.10	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.80	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	79.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	0.149	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	07/21/18	EK	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	28.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	35.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	88		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.18	0.52	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2600	280	mg/Kg	5	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	142		%	5	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	68		%	10	07/23/18	AW	30 - 150 %
% TCMX	59		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
2-Hexanone	ND	45	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	45	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	450	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Bromochloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	5.4	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
m&p-Xylene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	54	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
o-Xylene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Styrene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	710	ug/Kg	50	07/20/18	JLI	SW8260C
Trichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	50	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dimethylphenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dinitrophenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Chloronaphthalene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Chlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Methylnaphthalene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Nitroaniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
2-Nitrophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
3-Nitroaniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chloroaniline	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Nitroaniline	ND	1200	ug/Kg	2	07/24/18	KCA	SW8270D
4-Nitrophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acenaphthene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acenaphthylene	8400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acetophenone	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Aniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Anthracene	2100	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benz(a)anthracene	650	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzidine	ND	300	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(a)pyrene	2700	520	ug/Kg	2	07/24/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	2700	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(ghi)perylene	4400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(k)fluoranthene	1400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzoic acid	ND	1500	ug/Kg	2	07/24/18	KCA	SW8270D
Benzyl butyl phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Carbazole	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Chrysene	1300	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dibenz(a,h)anthracene	1200	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dibenzofuran	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Diethyl phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dimethylphthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Di-n-octylphthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Fluoranthene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Fluorene	790	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorobutadiene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachloroethane	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	4100	520	ug/Kg	2	07/24/18	KCA	SW8270D
Isophorone	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Naphthalene	1700	520	ug/Kg	2	07/24/18	KCA	SW8270D
Nitrobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Pentachloronitrobenzene	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Pentachlorophenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Phenanthrene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Phenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Pyrene	930	520	ug/Kg	2	07/24/18	KCA	SW8270D
Pyridine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	58		%	2	07/24/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	42		%	2	07/24/18	KCA	30 - 130 %
% 2-Fluorophenol	43		%	2	07/24/18	KCA	30 - 130 %
% Nitrobenzene-d5	45		%	2	07/24/18	KCA	30 - 130 %
% Phenol-d5	45		%	2	07/24/18	KCA	30 - 130 %
% Terphenyl-d14	35		%	2	07/24/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

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

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

Comments:

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

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

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

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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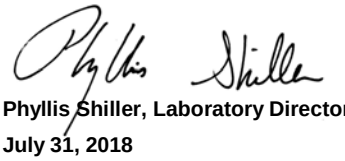

Phyllis Shiller, Laboratory Director
July 31, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

July 31, 2018

QA/QC Data

SDG I.D.: GCA91708

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 439754 (mg/L), QC Sample No: CA91132 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	0.006	<0.005	NC	103			102			75 - 125	20
Arsenic	BRL	0.004	0.009	<0.004	NC	101			99.4			75 - 125	20
Barium	BRL	0.010	0.008	0.009	NC	98.6			98.0			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.7			99.7			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	103			103			75 - 125	20
Chromium	BRL	0.010	0.002	0.001	NC	99.7			99.0			75 - 125	20
Copper	BRL	0.010	0.004	0.004	NC	99.5			99.2			75 - 125	20
Lead	BRL	0.010	0.003	<0.010	NC	100			100			75 - 125	20
Nickel	BRL	0.010	0.006	0.003	NC	101			99.7			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	100			98.6			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	100			99.9			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	97.2			96.3			75 - 125	20
Vanadium	BRL	0.010	0.032	0.032	NC	97.1			96.7			75 - 125	20
Zinc	BRL	0.010	0.005	0.004	NC	102			101			75 - 125	20
QA/QC Batch 439411 (mg/kg), QC Sample No: CA91307 (CA91708)													
ICP Metals - Soil													
Antimony	BRL	3.0	<4.1	<4.5	NC	113			97.8			75 - 125	30
Arsenic	BRL	0.60	3.30	3.38	NC	107			94.6			75 - 125	30
Barium	BRL	0.30	87.8	73.6	17.6	116			89.6			75 - 125	30
Beryllium	BRL	0.24	0.54	0.63	NC	111			103			75 - 125	30
Cadmium	BRL	0.30	<0.41	<0.45	NC	100			94.4			75 - 125	30
Chromium	BRL	0.30	18.6	21.7	15.4	116			102			75 - 125	30
Copper	0.64	0.30	34.7	34.8	0.30	110			109			75 - 125	30
Lead	BRL	0.30	13.1	12.4	5.50	107			97.7			75 - 125	30
Nickel	BRL	0.30	11.5	13.6	16.7	103			98.7			75 - 125	30
Selenium	BRL	1.2	<1.6	<1.8	NC	113			81.9			75 - 125	30
Silver	BRL	0.30	<4.1	<0.45	NC	104			90.2			75 - 125	30
Thallium	BRL	2.7	<3.7	<4.1	NC	104			94.3			75 - 125	30
Vanadium	BRL	0.30	32.8	34.8	5.90	123			104			75 - 125	30
Zinc	BRL	0.30	52.5	60.7	14.5	108			99.6			75 - 125	30
QA/QC Batch 439509 (mg/kg), QC Sample No: CA91307 (CA91708)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	89.8	89.0	0.9	96.0			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 439699 (mg/kg), QC Sample No: CA91709 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
Mercury - Soil	BRL	0.03	0.36	0.59	48.4	104	92.6	11.6	84.4			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 Data

SDG I.D.: GCA91708

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 440729 (mg/kg), QC Sample No: CA91712 (CA91711, CA91712)													
ICP Metals - Soil													
Antimony	BRL	3.5	<3.9	<4.1	NC	98.9			94.7			75 - 125	30
Arsenic	BRL	0.70	4.48	4.87	8.30	98.4			93.7			75 - 125	30
Barium	BRL	0.35	63.5	60.5	4.80	96.9			99.7			75 - 125	30
Beryllium	BRL	0.28	0.58	0.49	NC	97.4			97.5			75 - 125	30
Cadmium	BRL	0.35	<0.39	<0.41	NC	94.9			94.1			75 - 125	30
Chromium	BRL	0.35	19.7	19.0	3.60	102			98.2			75 - 125	30
Copper	BRL	0.70	15.3	15.5	1.30	95.6			100			75 - 125	30
Lead	BRL	0.35	20.2	26.1	25.5	96.0			95.0			75 - 125	30
Nickel	BRL	0.35	10.8	10.1	6.70	97.5			95.9			75 - 125	30
Selenium	BRL	1.4	<1.5	<1.7	NC	109			81.4			75 - 125	30
Silver	BRL	0.35	<0.39	3.16	NC	101			98.6			75 - 125	30
Thallium	BRL	3.2	<3.5	<3.7	NC	96.7			91.9			75 - 125	30
Vanadium	BRL	0.35	35.8	32.3	10.3	107			97.9			75 - 125	30
Zinc	BRL	0.70	38.8	37.8	2.60	95.4			91.6			75 - 125	30
QA/QC Batch 439804 (mg/kg), QC Sample No: CA91717 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.8	<3.7	NC	107			92.2			75 - 125	30
Arsenic	BRL	0.67	1.93	1.77	NC	108			90.3			75 - 125	30
Barium	BRL	0.33	49.4	51.2	3.60	112			103			75 - 125	30
Beryllium	BRL	0.27	0.35	0.35	NC	106			94.8			75 - 125	30
Cadmium	BRL	0.33	<0.38	<0.37	NC	101			90.8			75 - 125	30
Chromium	BRL	0.33	12.0	12.9	7.20	113			95.9			75 - 125	30
Copper	BRL	3.3	9.72	9.98	2.60	112			100			75 - 125	30
Lead	BRL	0.33	13.4	14.4	7.20	104			92.6			75 - 125	30
Nickel	BRL	0.33	7.27	7.67	5.40	103			93.9			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	118			79.1			75 - 125	30
Silver	BRL	0.33	<1.8	<0.37	NC	118			102			75 - 125	30
Thallium	BRL	3.0	<3.4	<3.3	NC	106			90.6			75 - 125	30
Vanadium	BRL	0.33	23.1	24.5	5.90	118			97.3			75 - 125	30
Zinc	BRL	0.33	20.8	21.2	1.90	106			90.5			75 - 125	30
QA/QC Batch 439518 (mg/L), QC Sample No: CA92748 (CA91708)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	90.2			100			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	89.1			96.0			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	88.2			97.0			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	88.0			97.6			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	90.1			98.0			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	88.5			96.3			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	88.6			98.8			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	89.4			96.8			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	88.4			96.2			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	89.9			99.2			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	88.3			95.9			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	84.6			91.6			75 - 125	20
Vanadium	BRL	0.010	0.012	0.013	NC	87.0			95.7			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	89.6			99.2			75 - 125	20
QA/QC Batch 439515 (mg/L), QC Sample No: CA92953 (CA91708)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	89.7			92.6			80 - 120	20

QA/QC Data

SDG I.D.: GCA91708

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%.													
QA/QC Batch 439704 (mg/L), QC Sample No: CA93877 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	92.6			87.1			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 440835 (mg/kg), QC Sample No: CA99405 (CA91711, CA91712)													
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	106	98.4	7.4	117			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 440844 (mg/L), QC Sample No: CA99450 (CA91711, CA91712)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	103			98.6			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	102			96.1			75 - 125	20
Barium	BRL	0.010	0.013	0.013	NC	103			98.6			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	97.9			95.1			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	104			97.8			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	103			97.1			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	98.9			95.6			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	103			97.3			75 - 125	20
Nickel	BRL	0.010	0.018	0.015	NC	104			97.6			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	104			99.4			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	97.3			93.9			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	104			98.6			75 - 125	20
Vanadium	BRL	0.010	0.012	0.012	NC	97.7			94.0			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	104			97.7			75 - 125	20
QA/QC Batch 440839 (mg/L), QC Sample No: CA99730 (CA91711, CA91712)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	86.5			98.3			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%.													

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

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

July 31, 2018

QA/QC Data

SDG I.D.: GCA91708

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 439437 (mg/Kg), QC Sample No: CA91086 50X (CA91708)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.58	0.62	NC	102			106			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 439830 (mg/Kg), QC Sample No: CA93881 50X (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	0.65	<0.57	NC	99.0			102			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 440745 (mg/Kg), QC Sample No: CA99405 50X (CA91711, CA91712)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.55	<0.55	NC	95.4			102			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

July 31, 2018

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 439723 (ug/kg), QC Sample No: CA90365 (CA91708 (50X))										
Volatiles - Soil										
1,1,2,2-Tetrachloroethane	ND	3.0	101	100	1.0	91	92	1.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	100	94	6.2	94	103	9.1	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	93	93	0.0	85	88	3.5	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	102	92	10.3	96	105	9.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	97	93	4.2	95	99	4.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	96	93	3.2	93	97	4.2	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	97	94	3.1	94	98	4.2	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	97	92	5.3	95	99	4.1	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	95	91	4.3	93	97	4.2	70 - 130	30
2-Chlorotoluene	ND	5.0	96	93	3.2	93	97	4.2	70 - 130	30
2-Isopropyltoluene	ND	5.0	105	103	1.9	103	107	3.8	70 - 130	30
4-Chlorotoluene	ND	5.0	96	90	6.5	92	96	4.3	70 - 130	30
Benzene	ND	1.0	93	92	1.1	91	93	2.2	70 - 130	30
Bromobenzene	ND	5.0	98	95	3.1	95	98	3.1	70 - 130	30
Hexachlorobutadiene	ND	5.0	99	92	7.3	99	105	5.9	70 - 130	30
Isopropylbenzene	ND	1.0	95	93	2.1	92	96	4.3	70 - 130	30
Naphthalene	ND	5.0	103	99	4.0	92	100	8.3	70 - 130	30
n-Butylbenzene	ND	1.0	99	92	7.3	97	102	5.0	70 - 130	30
n-Propylbenzene	ND	1.0	96	92	4.3	93	97	4.2	70 - 130	30
p-Isopropyltoluene	ND	1.0	99	94	5.2	98	102	4.0	70 - 130	30
sec-Butylbenzene	ND	1.0	100	97	3.0	98	102	4.0	70 - 130	30
tert-Butylbenzene	ND	1.0	96	94	2.1	93	97	4.2	70 - 130	30
Toluene	ND	1.0	93	92	1.1	93	95	2.1	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	116	116	0.0	102	104	1.9	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	100	0.0	99	100	1.0	70 - 130	30
% Bromofluorobenzene	99	%	101	101	0.0	101	101	0.0	70 - 130	30

Comment:

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

QA/QC Batch 439334 (mg/Kg), QC Sample No: CA91307 (CA91708)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	103			73	97	28.2	60 - 120	30
% n-Pentacosane	53	%	108			81	88	8.3	50 - 150	30

Comment:

The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.

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 439329 (ug/kg), QC Sample No: CA91994 (CA91708)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	66	62	6.3	70	63	10.5	30 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Acenaphthene	ND	230	77	71	8.1	75	68	9.8	30 - 130	30	
Acenaphthylene	ND	230	71	65	8.8	67	61	9.4	30 - 130	30	
Anthracene	ND	230	74	71	4.1	71	68	4.3	30 - 130	30	
Benz(a)anthracene	ND	230	75	71	5.5	71	65	8.8	30 - 130	30	
Benzo(a)pyrene	ND	230	72	68	5.7	67	61	9.4	30 - 130	30	
Benzo(b)fluoranthene	ND	230	74	71	4.1	70	65	7.4	30 - 130	30	
Benzo(ghi)perylene	ND	230	71	65	8.8	64	60	6.5	30 - 130	30	
Benzo(k)fluoranthene	ND	230	79	73	7.9	73	67	8.6	30 - 130	30	
Chrysene	ND	230	78	72	8.0	74	68	8.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	76	71	6.8	71	63	11.9	30 - 130	30	
Fluoranthene	ND	230	79	73	7.9	71	66	7.3	30 - 130	30	
Fluorene	ND	230	76	70	8.2	73	67	8.6	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	72	68	5.7	68	62	9.2	30 - 130	30	
Naphthalene	ND	230	63	59	6.6	68	61	10.9	30 - 130	30	
Phenanthrene	ND	230	75	71	5.5	71	66	7.3	30 - 130	30	
Pyrene	ND	230	80	74	7.8	73	69	5.6	30 - 130	30	
% 2-Fluorobiphenyl	68	%	71	67	5.8	76	68	11.1	30 - 130	30	
% Nitrobenzene-d5	57	%	60	59	1.7	71	68	4.3	30 - 130	30	
% Terphenyl-d14	68	%	76	71	6.8	72	68	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 439719 (ug/kg), QC Sample No: CA93486 (CA91714, CA91715, CA91719, CA91720, CA91721)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	100	86	15.1	94	97	3.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	96	85	12.2	94	95	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	96	81	16.9	87	93	6.7	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	89	79	11.9	84	87	3.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	84	74	12.7	82	84	2.4	70 - 130	30	
1,1-Dichloroethene	ND	5.0	93	81	13.8	90	91	1.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	95	85	11.1	91	94	3.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	91	78	15.4	94	72	26.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	87	76	13.5	80	86	7.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	91	77	16.7	97	72	29.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	96	82	15.7	84	89	5.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	99	86	14.1	97	93	4.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	95	82	14.7	86	90	4.5	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	93	80	15.0	94	83	12.4	70 - 130	30	
1,2-Dichloroethane	ND	5.0	91	79	14.1	85	88	3.5	70 - 130	30	
1,2-Dichloropropane	ND	5.0	89	78	13.2	86	87	1.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	96	83	14.5	88	93	5.5	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	94	80	16.1	79	84	6.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	91	79	14.1	84	87	3.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	78	16.5	77	81	5.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	101	82	20.8	93	94	1.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	95	81	15.9	86	90	4.5	70 - 130	30	
2-Hexanone	ND	25	76	66	14.1	77	73	5.3	70 - 130	30	I
2-Isopropyltoluene	ND	5.0	105	91	14.3	96	102	6.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	93	79	16.3	81	85	4.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	79	70	12.1	73	76	4.0	70 - 130	30	
Acetone	ND	10	61	54	12.2	65	64	1.6	70 - 130	30	I,m
Acrylonitrile	ND	5.0	84	73	14.0	72	74	2.7	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzene	ND	1.0	93	81	13.8	88	91	3.4	70 - 130	30	
Bromobenzene	ND	5.0	96	82	15.7	85	90	5.7	70 - 130	30	
Bromochloromethane	ND	5.0	96	82	15.7	89	91	2.2	70 - 130	30	
Bromodichloromethane	ND	5.0	96	85	12.2	91	93	2.2	70 - 130	30	
Bromoform	ND	5.0	104	90	14.4	90	95	5.4	70 - 130	30	
Bromomethane	ND	5.0	117	89	27.2	111	117	5.3	70 - 130	30	
Carbon Disulfide	ND	5.0	109	95	13.7	102	105	2.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	99	87	12.9	81	83	2.4	70 - 130	30	
Chlorobenzene	ND	5.0	94	81	14.9	86	88	2.3	70 - 130	30	
Chloroethane	ND	5.0	102	82	21.7	103	105	1.9	70 - 130	30	
Chloroform	ND	5.0	94	82	13.6	90	92	2.2	70 - 130	30	
Chloromethane	ND	5.0	95	84	12.3	91	94	3.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	84	12.3	90	92	2.2	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	94	83	12.4	85	88	3.5	70 - 130	30	
Dibromochloromethane	ND	3.0	106	92	14.1	96	101	5.1	70 - 130	30	
Dibromomethane	ND	5.0	91	81	11.6	85	88	3.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	127	111	13.4	121	123	1.6	70 - 130	30	
Ethylbenzene	ND	1.0	96	83	14.5	90	93	3.3	70 - 130	30	
Hexachlorobutadiene	ND	5.0	98	82	17.8	101	87	14.9	70 - 130	30	
Isopropylbenzene	ND	1.0	97	82	16.8	90	95	5.4	70 - 130	30	
m&p-Xylene	ND	2.0	98	84	15.4	90	92	2.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	61	15.2	76	71	6.8	70 - 130	30	I
Methyl t-butyl ether (MTBE)	ND	1.0	99	84	16.4	94	95	1.1	70 - 130	30	
Methylene chloride	ND	5.0	79	68	15.0	76	77	1.3	70 - 130	30	I
Naphthalene	ND	5.0	94	81	14.9	92	79	15.2	70 - 130	30	
n-Butylbenzene	ND	1.0	97	82	16.8	81	87	7.1	70 - 130	30	
n-Propylbenzene	ND	1.0	96	83	14.5	86	92	6.7	70 - 130	30	
o-Xylene	ND	2.0	96	83	14.5	90	93	3.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	84	16.4	86	93	7.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	101	87	14.9	92	98	6.3	70 - 130	30	
Styrene	ND	5.0	96	83	14.5	84	86	2.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	97	84	14.4	90	96	6.5	70 - 130	30	
Tetrachloroethene	ND	5.0	95	84	12.3	89	91	2.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	84	74	12.7	77	80	3.8	70 - 130	30	
Toluene	ND	1.0	93	82	12.6	88	90	2.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	94	82	13.6	90	93	3.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	92	80	14.0	81	84	3.6	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	108	91	17.1	83	90	8.1	70 - 130	30	
Trichloroethene	ND	5.0	96	85	12.2	92	93	1.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	113	97	15.2	109	112	2.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	105	91	14.3	102	104	1.9	70 - 130	30	
Vinyl chloride	ND	5.0	110	96	13.6	106	109	2.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	99	1.0	98	99	1.0	70 - 130	30	
% Bromofluorobenzene	100	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Dibromofluoromethane	95	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Toluene-d8	103	%	98	99	1.0	99	99	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 439591 (mg/Kg), QC Sample No: CA93630 (CA91709)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	94	93	1.1	124	146	16.3	60 - 120	30	
% n-Pentacosane	81	%	67	61	9.4	82	95	14.7	50 - 150	30	

QA/QC Data

SDG I.D.: GCA91708

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 439592 (mg/Kg), QC Sample No: CA93879 (CA91714)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	88	79	10.8	75	71	5.5	60 - 120	30	
% n-Pentacosane	64	%	91	84	8.0	96	83	14.5	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 439968 (ug/kg), QC Sample No: CA94060 (CA91708, CA91709 (50X) , CA91714 (50X) , CA91719 (50X) , CA91720 (50X) , CA91721 (50X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	100	101	1.0	100	101	1.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	94	95	1.1	90	91	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	100	2.0	95	93	2.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	92	92	0.0	95	93	2.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	83	85	2.4	80	80	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	91	92	1.1	76	75	1.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	94	94	0.0	95	95	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	96	98	2.1	97	100	3.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	92	93	1.1	86	85	1.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	95	99	4.1	99	101	2.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	94	96	2.1	95	96	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	101	105	3.9	100	97	3.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	96	97	1.0	97	96	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	92	95	3.2	95	95	0.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	92	93	1.1	93	91	2.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	90	91	1.1	91	91	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	94	97	3.1	95	96	1.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	93	96	3.2	97	97	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	92	93	1.1	93	92	1.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	94	2.2	94	95	1.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	98	96	2.1	92	94	2.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	93	95	2.1	94	95	1.1	70 - 130	30	
2-Hexanone	ND	25	80	80	0.0	77	73	5.3	70 - 130	30	
2-Isopropyltoluene	ND	5.0	102	104	1.9	104	105	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	92	94	2.2	93	95	2.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	85	85	0.0	83	79	4.9	70 - 130	30	
Acetone	ND	10	68	70	2.9	59	68	14.2	70 - 130	30	l,m
Acrylonitrile	ND	5.0	87	89	2.3	87	82	5.9	70 - 130	30	
Benzene	ND	1.0	92	92	0.0	92	92	0.0	70 - 130	30	
Bromobenzene	ND	5.0	95	97	2.1	97	97	0.0	70 - 130	30	
Bromochloromethane	ND	5.0	95	95	0.0	93	92	1.1	70 - 130	30	
Bromodichloromethane	ND	5.0	97	98	1.0	96	97	1.0	70 - 130	30	
Bromoform	ND	5.0	107	110	2.8	101	100	1.0	70 - 130	30	
Bromomethane	ND	5.0	109	105	3.7	92	91	1.1	70 - 130	30	
Carbon Disulfide	ND	5.0	105	108	2.8	72	77	6.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	83	83	0.0	75	77	2.6	70 - 130	30	
Chlorobenzene	ND	5.0	93	94	1.1	94	95	1.1	70 - 130	30	
Chloroethane	ND	5.0	97	97	0.0	86	89	3.4	70 - 130	30	
Chloroform	ND	5.0	92	94	2.2	89	89	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chloromethane	ND	5.0	92	92	0.0	80	80	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	94	95	1.1	93	92	1.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	95	96	1.0	96	96	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	108	109	0.9	104	105	1.0	70 - 130	30	
Dibromomethane	ND	5.0	93	94	1.1	94	93	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	112	113	0.9	99	99	0.0	70 - 130	30	
Ethylbenzene	ND	1.0	94	95	1.1	95	96	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	94	98	4.2	103	105	1.9	70 - 130	30	
Isopropylbenzene	ND	1.0	93	95	2.1	93	95	2.1	70 - 130	30	
m&p-Xylene	ND	2.0	95	98	3.1	96	98	2.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	75	74	1.3	72	68	5.7	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	102	103	1.0	92	89	3.3	70 - 130	30	
Methylene chloride	ND	5.0	79	81	2.5	72	77	6.7	70 - 130	30	
Naphthalene	ND	5.0	98	100	2.0	100	99	1.0	70 - 130	30	
n-Butylbenzene	ND	1.0	94	98	4.2	97	98	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	92	95	3.2	94	95	1.1	70 - 130	30	
o-Xylene	ND	2.0	94	96	2.1	97	98	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	95	99	4.1	97	99	2.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	97	100	3.0	98	100	2.0	70 - 130	30	
Styrene	ND	5.0	96	98	2.1	98	98	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	93	95	2.1	93	96	3.2	70 - 130	30	
Tetrachloroethene	ND	5.0	93	94	1.1	99	100	1.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	88	88	0.0	85	80	6.1	70 - 130	30	
Toluene	ND	1.0	92	93	1.1	94	95	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	93	95	2.1	83	84	1.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	95	94	1.1	95	93	2.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	111	113	1.8	103	101	2.0	70 - 130	30	
Trichloroethene	ND	5.0	95	96	1.0	95	97	2.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	106	107	0.9	94	92	2.2	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	102	101	1.0	87	82	5.9	70 - 130	30	
Vinyl chloride	ND	5.0	105	105	0.0	87	89	2.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	99	100	1.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	100	%	100	100	0.0	101	100	1.0	70 - 130	30	
% Dibromofluoromethane	96	%	102	101	1.0	99	100	1.0	70 - 130	30	
% Toluene-d8	103	%	99	99	0.0	100	99	1.0	70 - 130	30	

Comment:

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

QA/QC Batch 439654 (ug/Kg), QC Sample No: CA94225 2X (CA91708)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	81	100	21.0	72	70	2.8	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	89	103	14.6	77	70	9.5	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	95	%	105	99	5.9	71	60	16.8	30 - 150	30	
% TCMX (Surrogate Rec)	86	%	88	101	13.8	74	74	0.0	30 - 150	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 439728 (mg/Kg), QC Sample No: CA94567 (CA91715, CA91717, CA91719, CA91720, CA91721)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	67	60	11.0	71	64	10.4	60 - 120	30
% n-Pentacosane	70	%	63	64	1.6	70	66	5.9	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 439787 (ug/kg), QC Sample No: CA94567 (CA91709)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	59	53	10.7	53	55	3.7	30 - 130	30
Acenaphthene	ND	230	59	52	12.6	53	55	3.7	30 - 130	30
Acenaphthylene	ND	230	56	50	11.3	51	52	1.9	30 - 130	30
Anthracene	ND	230	59	53	10.7	49	52	5.9	30 - 130	30
Benz(a)anthracene	ND	230	59	52	12.6	42	46	9.1	30 - 130	30
Benzo(a)pyrene	ND	230	57	50	13.1	41	45	9.3	30 - 130	30
Benzo(b)fluoranthene	ND	230	60	55	8.7	45	46	2.2	30 - 130	30
Benzo(ghi)perylene	ND	230	60	52	14.3	52	55	5.6	30 - 130	30
Benzo(k)fluoranthene	ND	230	59	50	16.5	41	46	11.5	30 - 130	30
Chrysene	ND	230	58	51	12.8	43	48	11.0	30 - 130	30
Dibenz(a,h)anthracene	ND	230	61	53	14.0	59	60	1.7	30 - 130	30
Fluoranthene	ND	230	60	54	10.5	36	45	22.2	30 - 130	30
Fluorene	ND	230	60	52	14.3	56	57	1.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	62	54	13.8	52	55	5.6	30 - 130	30
Naphthalene	ND	230	62	56	10.2	58	59	1.7	30 - 130	30
Phenanthrene	ND	230	59	53	10.7	36	45	22.2	30 - 130	30
Pyrene	ND	230	60	54	10.5	39	48	20.7	30 - 130	30
% 2-Fluorobiphenyl	44	%	57	52	9.2	52	52	0.0	30 - 130	30
% Nitrobenzene-d5	39	%	55	49	11.5	65	60	8.0	30 - 130	30
% Terphenyl-d14	40	%	56	52	7.4	56	55	1.8	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 439961 (ug/kg), QC Sample No: CA94870 (CA91709)										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	96	97	1.0	102	95	7.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	97	95	2.1	102	95	7.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	100	1.0	105	91	14.3	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	97	95	2.1	100	95	5.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	100	99	1.0	100	94	6.2	70 - 130	30
1,1-Dichloroethene	ND	5.0	98	99	1.0	107	96	10.8	70 - 130	30
1,1-Dichloropropene	ND	5.0	98	99	1.0	106	97	8.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	93	96	3.2	102	91	11.4	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	92	93	1.1	97	92	5.3	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	91	95	4.3	104	90	14.4	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	98	3.1	105	82	24.6	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	97	98	1.0	104	103	1.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	95	96	1.0	98	95	3.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	92	93	1.1	102	90	12.5	70 - 130	30
1,2-Dichloroethane	ND	5.0	93	93	0.0	94	87	7.7	70 - 130	30
1,2-Dichloropropane	ND	5.0	100	99	1.0	102	95	7.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	98	100	2.0	107	95	11.9	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,3-Dichlorobenzene	ND	5.0	92	94	2.2	102	90	12.5	70 - 130	30
1,3-Dichloropropane	ND	5.0	95	95	0.0	99	93	6.3	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	89	91	2.2	100	87	13.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	100	103	3.0	94	92	2.2	70 - 130	30
2-Chlorotoluene	ND	5.0	95	98	3.1	105	96	9.0	70 - 130	30
2-Hexanone	ND	25	95	95	0.0	87	84	3.5	70 - 130	30
2-Isopropyltoluene	ND	5.0	106	108	1.9	115	107	7.2	70 - 130	30
4-Chlorotoluene	ND	5.0	94	95	1.1	101	90	11.5	70 - 130	30
4-Methyl-2-pentanone	ND	25	99	102	3.0	92	90	2.2	70 - 130	30
Acetone	ND	10	86	88	2.3	79	91	14.1	70 - 130	30
Acrylonitrile	ND	5.0	101	99	2.0	92	88	4.4	70 - 130	30
Bromobenzene	ND	5.0	95	95	0.0	104	95	9.0	70 - 130	30
Bromochloromethane	ND	5.0	97	96	1.0	102	96	6.1	70 - 130	30
Bromodichloromethane	ND	5.0	97	96	1.0	98	93	5.2	70 - 130	30
Bromoform	ND	5.0	96	96	0.0	97	93	4.2	70 - 130	30
Bromomethane	ND	5.0	107	104	2.8	111	103	7.5	70 - 130	30
Carbon Disulfide	ND	5.0	107	109	1.9	110	103	6.6	70 - 130	30
Carbon tetrachloride	ND	5.0	97	99	2.0	101	95	6.1	70 - 130	30
Chlorobenzene	ND	5.0	94	94	0.0	101	93	8.2	70 - 130	30
Chloroethane	ND	5.0	111	110	0.9	115	106	8.1	70 - 130	30
Chloroform	ND	5.0	94	95	1.1	96	92	4.3	70 - 130	30
Chloromethane	ND	5.0	105	105	0.0	99	90	9.5	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	100	100	0.0	105	102	2.9	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	102	1.0	103	97	6.0	70 - 130	30
Dibromochloromethane	ND	3.0	100	100	0.0	102	98	4.0	70 - 130	30
Dibromomethane	ND	5.0	93	93	0.0	98	91	7.4	70 - 130	30
Dichlorodifluoromethane	ND	5.0	102	106	3.8	106	98	7.8	70 - 130	30
Ethylbenzene	ND	1.0	96	97	1.0	96	89	7.6	70 - 130	30
Hexachlorobutadiene	ND	5.0	92	98	6.3	105	92	13.2	70 - 130	30
Isopropylbenzene	ND	1.0	100	101	1.0	109	102	6.6	70 - 130	30
m&p-Xylene	ND	2.0	94	95	1.1	84	78	7.4	70 - 130	30
Methyl ethyl ketone	ND	5.0	92	91	1.1	77	80	3.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	106	0.9	107	103	3.8	70 - 130	30
Methylene chloride	ND	5.0	82	81	1.2	105	101	3.9	70 - 130	30
n-Butylbenzene	ND	1.0	94	100	6.2	109	94	14.8	70 - 130	30
n-Propylbenzene	ND	1.0	96	99	3.1	107	94	12.9	70 - 130	30
o-Xylene	ND	2.0	98	101	3.0	95	87	8.8	70 - 130	30
p-Isopropyltoluene	ND	1.0	98	103	5.0	110	101	8.5	70 - 130	30
sec-Butylbenzene	ND	1.0	101	105	3.9	111	103	7.5	70 - 130	30
Styrene	ND	5.0	100	100	0.0	105	98	6.9	70 - 130	30
tert-Butylbenzene	ND	1.0	100	102	2.0	108	102	5.7	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	104	106	1.9	88	86	2.3	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	98	100	2.0	105	99	5.9	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	96	0.0	94	88	6.6	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	109	110	0.9	104	96	8.0	70 - 130	30
Trichloroethene	ND	5.0	96	97	1.0	108	102	5.7	70 - 130	30
Trichlorofluoromethane	ND	5.0	101	102	1.0	101	95	6.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	95	100	5.1	108	101	6.7	70 - 130	30
Vinyl chloride	ND	5.0	113	113	0.0	115	106	8.1	70 - 130	30
% 1,2-dichlorobenzene-d4	105	%	99	101	2.0	99	100	1.0	70 - 130	30
% Bromofluorobenzene	92	%	100	99	1.0	96	99	3.1	70 - 130	30
% Dibromofluoromethane	106	%	100	99	1.0	99	99	0.0	70 - 130	30
% Toluene-d8	100	%	102	102	0.0	102	100	2.0	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

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 439789 (ug/Kg), QC Sample No: CA95173 2X (CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	77	72	6.7	79	72	9.3	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	86	79	8.5	80	76	5.1	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	96	%	105	97	7.9	93	86	7.8	30 - 150	30	
% TCMX (Surrogate Rec)	91	%	90	87	3.4	90	83	8.1	30 - 150	30	
QA/QC Batch 439785 (ug/kg), QC Sample No: CA95183 (CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	56	53	5.5	51	52	1.9	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	52	51	1.9	55	53	3.7	30 - 130	30	
1,2-Dichlorobenzene	ND	180	46	46	0.0	46	46	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	53	49	7.8	51	51	0.0	30 - 130	30	
1,3-Dichlorobenzene	ND	230	42	43	2.4	43	42	2.4	30 - 130	30	
1,4-Dichlorobenzene	ND	230	44	44	0.0	44	44	0.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	64	59	8.1	57	58	1.7	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	62	58	6.7	56	56	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	62	59	5.0	56	57	1.8	30 - 130	30	
2,4-Dimethylphenol	ND	230	63	58	8.3	60	60	0.0	30 - 130	30	
2,4-Dinitrophenol	ND	230	10	<10	NC	36	32	11.8	30 - 130	30	I
2,4-Dinitrotoluene	ND	130	60	58	3.4	57	55	3.6	30 - 130	30	
2,6-Dinitrotoluene	ND	130	60	57	5.1	55	56	1.8	30 - 130	30	
2-Chloronaphthalene	ND	230	56	51	9.3	54	53	1.9	30 - 130	30	
2-Chlorophenol	ND	230	56	50	11.3	53	50	5.8	30 - 130	30	
2-Methylnaphthalene	ND	230	55	50	9.5	52	52	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	60	53	12.4	55	56	1.8	30 - 130	30	
2-Nitroaniline	ND	330	88	81	8.3	79	82	3.7	30 - 130	30	
2-Nitrophenol	ND	230	64	56	13.3	63	61	3.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	62	54	13.8	54	53	1.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	61	57	6.8	58	61	5.0	30 - 130	30	
3-Nitroaniline	ND	330	69	68	1.5	65	64	1.6	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	28	15	60.5	43	39	9.8	30 - 130	30	I,r
4-Bromophenyl phenyl ether	ND	230	59	56	5.2	54	56	3.6	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	66	62	6.3	59	61	3.3	30 - 130	30	
4-Chloroaniline	ND	230	58	58	0.0	57	59	3.4	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	56	52	7.4	52	52	0.0	30 - 130	30	
4-Nitroaniline	ND	230	64	58	9.8	58	57	1.7	30 - 130	30	
4-Nitrophenol	ND	230	67	61	9.4	61	61	0.0	30 - 130	30	
Acenaphthene	ND	230	57	53	7.3	54	55	1.8	30 - 130	30	
Acenaphthylene	ND	130	53	50	5.8	50	51	2.0	30 - 130	30	
Acetophenone	ND	230	50	48	4.1	47	47	0.0	30 - 130	30	
Aniline	ND	330	41	39	5.0	43	42	2.4	30 - 130	30	
Anthracene	ND	230	59	54	8.8	52	55	5.6	30 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benz(a)anthracene	ND	230	59	53	10.7	41	49	17.8	30 - 130	30	
Benzidine	ND	330	38	37	2.7	38	45	16.9	30 - 130	30	
Benzo(a)pyrene	ND	130	56	52	7.4	38	44	14.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	59	57	3.4	42	45	6.9	30 - 130	30	
Benzo(ghi)perylene	ND	230	61	56	8.5	40	45	11.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	61	55	10.3	41	47	13.6	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	<10	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	55	51	7.5	50	49	2.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	54	51	5.7	52	52	0.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	41	41	0.0	42	42	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	42	39	7.4	40	39	2.5	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	55	53	3.7	54	55	1.8	30 - 130	30	
Carbazole	ND	230	61	57	6.8	54	56	3.6	30 - 130	30	
Chrysene	ND	230	58	54	7.1	39	45	14.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	65	59	9.7	54	57	5.4	30 - 130	30	
Dibenzofuran	ND	230	57	52	9.2	52	52	0.0	30 - 130	30	
Diethyl phthalate	ND	230	59	57	3.4	56	55	1.8	30 - 130	30	
Dimethylphthalate	ND	230	58	54	7.1	55	54	1.8	30 - 130	30	
Di-n-butylphthalate	ND	670	59	55	7.0	51	52	1.9	30 - 130	30	
Di-n-octylphthalate	ND	230	63	59	6.6	58	61	5.0	30 - 130	30	
Fluoranthene	ND	230	62	57	8.4	15	31	69.6	30 - 130	30	m,r
Fluorene	ND	230	56	52	7.4	53	53	0.0	30 - 130	30	
Hexachlorobenzene	ND	130	61	54	12.2	54	57	5.4	30 - 130	30	
Hexachlorobutadiene	ND	230	55	53	3.7	57	55	3.6	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	41	36	13.0	19	17	11.1	30 - 130	30	m
Hexachloroethane	ND	130	47	47	0.0	49	48	2.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	64	60	6.5	42	48	13.3	30 - 130	30	
Isophorone	ND	130	52	48	8.0	51	49	4.0	30 - 130	30	
Naphthalene	ND	230	52	49	5.9	51	51	0.0	30 - 130	30	
Nitrobenzene	ND	130	55	51	7.5	53	52	1.9	30 - 130	30	
N-Nitrosodimethylamine	ND	230	36	36	0.0	38	30	23.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	59	52	12.6	55	53	3.7	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	58	55	5.3	54	54	0.0	30 - 130	30	
Pentachloronitrobenzene	ND	230	59	54	8.8	51	53	3.8	30 - 130	30	
Pentachlorophenol	ND	230	64	50	24.6	54	54	0.0	30 - 130	30	
Phenanthrene	ND	130	57	52	9.2	30	35	15.4	30 - 130	30	
Phenol	ND	230	55	50	9.5	53	53	0.0	30 - 130	30	
Pyrene	ND	230	64	59	8.1	25	39	43.8	30 - 130	30	m,r
Pyridine	ND	230	27	29	7.1	29	23	23.1	30 - 130	30	l,m
% 2,4,6-Tribromophenol	59	%	66	60	9.5	62	58	6.7	30 - 130	30	
% 2-Fluorobiphenyl	53	%	54	49	9.7	52	51	1.9	30 - 130	30	
% 2-Fluorophenol	48	%	49	49	0.0	50	45	10.5	30 - 130	30	
% Nitrobenzene-d5	53	%	54	52	3.8	54	52	3.8	30 - 130	30	
% Phenol-d5	53	%	57	51	11.1	53	51	3.8	30 - 130	30	
% Terphenyl-d14	59	%	61	56	8.5	49	52	5.9	30 - 130	30	

Comment:

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

QA/QC Batch 440641 (ug/kg), QC Sample No: CA99009 (CA91711, CA91712)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	47	62	27.5	62			30 - 130	30	
Acenaphthene	ND	230	51	69	30.0	64			30 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Acenaphthylene	ND	230	50	65	26.1	62			30 - 130	30	
Anthracene	ND	230	52	72	32.3	67			30 - 130	30	r
Benz(a)anthracene	ND	230	54	73	29.9	68			30 - 130	30	
Benzo(a)pyrene	ND	230	52	71	30.9	66			30 - 130	30	r
Benzo(b)fluoranthene	ND	230	54	74	31.3	67			30 - 130	30	r
Benzo(ghi)perylene	ND	230	50	67	29.1	65			30 - 130	30	
Benzo(k)fluoranthene	ND	230	54	71	27.2	68			30 - 130	30	
Chrysene	ND	230	52	71	30.9	66			30 - 130	30	r
Dibenz(a,h)anthracene	ND	230	54	72	28.6	70			30 - 130	30	
Fluoranthene	ND	230	53	71	29.0	68			30 - 130	30	
Fluorene	ND	230	52	68	26.7	64			30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	56	77	31.6	72			30 - 130	30	r
Naphthalene	ND	230	48	65	30.1	62			30 - 130	30	
Phenanthrene	ND	230	51	69	30.0	64			30 - 130	30	
Pyrene	ND	230	53	71	29.0	68			30 - 130	30	
% 2-Fluorobiphenyl	70	%	43	69	46.4	65			30 - 130	30	r
% Nitrobenzene-d5	58	%	40	59	38.4	60			30 - 130	30	r
% Terphenyl-d14	65	%	43	71	49.1	68			30 - 130	30	r

Comment:

This batch consists of a Blank, LCS, LCSD and MS.

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 440643 (mg/Kg), QC Sample No: CA99145 (CA91711, CA91712)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	67	63	6.2	75	72	4.1	60 - 120	30	
% n-Pentacosane	68	%	73	67	8.6	76	78	2.6	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.

QA/QC Batch 440867 (ug/kg), QC Sample No: CA99219 (CA91711 (50X))

Volatiles - Soil

1,1,2,2-Tetrachloroethane	ND	3.0	107	102	4.8	109	109	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	106	102	3.8	116	112	3.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	102	98	4.0	107	105	1.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	104	99	4.9	110	107	2.8	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	100	97	3.0	109	105	3.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	102	99	3.0	108	104	3.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	99	97	2.0	106	103	2.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	102	99	3.0	109	106	2.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	101	98	3.0	107	104	2.8	70 - 130	30	
2-Chlorotoluene	ND	5.0	101	99	2.0	109	104	4.7	70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	103	1.0	112	109	2.7	70 - 130	30	
4-Chlorotoluene	ND	5.0	100	99	1.0	108	104	3.8	70 - 130	30	
Bromobenzene	ND	5.0	101	99	2.0	106	105	0.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	100	96	4.1	98	102	4.0	70 - 130	30	
Isopropylbenzene	ND	1.0	99	98	1.0	105	103	1.9	70 - 130	30	
Naphthalene	ND	5.0	111	105	5.6	125	120	4.1	70 - 130	30	
n-Butylbenzene	ND	1.0	105	102	2.9	113	110	2.7	70 - 130	30	
n-Propylbenzene	ND	1.0	99	98	1.0	108	103	4.7	70 - 130	30	
p-Isopropyltoluene	ND	1.0	102	100	2.0	111	106	4.6	70 - 130	30	
sec-Butylbenzene	ND	1.0	102	100	2.0	110	109	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
tert-Butylbenzene	ND	1.0	97	96	1.0	105	102	2.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	101	97	4.0	95	95	0.0	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	101	100	1.0	105	100	4.9	70 - 130	30
% Bromofluorobenzene	96	%	100	100	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 440852 (ug/kg), QC Sample No: CA99223 (CA91711, CA91712)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	93	95	2.1	94	98	4.2	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	92	92	0.0	94	100	6.2	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	101	2.0	100	106	5.8	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	97	1.0	93	96	3.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	97	98	1.0	101	102	1.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	108	103	4.7	113	116	2.6	70 - 130	30
1,1-Dichloropropene	ND	5.0	96	98	2.1	98	104	5.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	98	99	1.0	85	91	6.8	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	96	99	3.1	97	102	5.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	94	96	2.1	81	90	10.5	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	96	98	2.1	95	101	6.1	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	91	93	2.2	91	90	1.1	70 - 130	30
1,2-Dibromoethane	ND	5.0	94	96	2.1	94	98	4.2	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	96	99	3.1	92	100	8.3	70 - 130	30
1,2-Dichloroethane	ND	5.0	101	104	2.9	99	104	4.9	70 - 130	30
1,2-Dichloropropane	ND	5.0	98	99	1.0	98	98	0.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	93	96	3.2	96	102	6.1	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	96	98	2.1	92	99	7.3	70 - 130	30
1,3-Dichloropropane	ND	5.0	96	97	1.0	97	97	0.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	95	97	2.1	89	98	9.6	70 - 130	30
2,2-Dichloropropane	ND	5.0	91	91	0.0	89	88	1.1	70 - 130	30
2-Chlorotoluene	ND	5.0	95	96	1.0	97	103	6.0	70 - 130	30
2-Hexanone	ND	25	92	91	1.1	87	89	2.3	70 - 130	30
2-Isopropyltoluene	ND	5.0	100	103	3.0	103	108	4.7	70 - 130	30
4-Chlorotoluene	ND	5.0	95	98	3.1	94	100	6.2	70 - 130	30
4-Methyl-2-pentanone	ND	25	100	99	1.0	95	96	1.0	70 - 130	30
Acetone	ND	10	78	83	6.2	71	75	5.5	70 - 130	30
Acrylonitrile	ND	5.0	90	90	0.0	90	86	4.5	70 - 130	30
Benzene	ND	1.0	96	98	2.1	98	103	5.0	70 - 130	30
Bromobenzene	ND	5.0	96	99	3.1	95	101	6.1	70 - 130	30
Bromochloromethane	ND	5.0	93	93	0.0	93	98	5.2	70 - 130	30
Bromodichloromethane	ND	5.0	95	97	2.1	93	95	2.1	70 - 130	30
Bromoform	ND	5.0	87	87	0.0	83	85	2.4	70 - 130	30
Bromomethane	ND	5.0	110	113	2.7	118	123	4.1	70 - 130	30
Carbon Disulfide	ND	5.0	107	104	2.8	108	114	5.4	70 - 130	30
Carbon tetrachloride	ND	5.0	87	87	0.0	88	92	4.4	70 - 130	30
Chlorobenzene	ND	5.0	96	97	1.0	98	101	3.0	70 - 130	30
Chloroethane	ND	5.0	110	105	4.7	113	119	5.2	70 - 130	30
Chloroform	ND	5.0	90	91	1.1	93	96	3.2	70 - 130	30
Chloromethane	ND	5.0	95	92	3.2	92	94	2.2	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	96	95	1.0	95	97	2.1	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	96	96	0.0	90	94	4.3	70 - 130	30
Dibromochloromethane	ND	3.0	95	97	2.1	90	95	5.4	70 - 130	30
Dibromomethane	ND	5.0	97	99	2.0	94	98	4.2	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dichlorodifluoromethane	ND	5.0	101	99	2.0	98	101	3.0	70 - 130	30	
Ethylbenzene	ND	1.0	94	96	2.1	98	102	4.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	95	97	2.1	94	101	7.2	70 - 130	30	
Isopropylbenzene	ND	1.0	93	97	4.2	99	105	5.9	70 - 130	30	
m&p-Xylene	ND	2.0	93	93	0.0	94	99	5.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	92	95	3.2	90	91	1.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	87	86	1.2	85	84	1.2	70 - 130	30	
Methylene chloride	ND	5.0	104	102	1.9	106	108	1.9	70 - 130	30	
Naphthalene	ND	5.0	103	104	1.0	91	95	4.3	70 - 130	30	
n-Butylbenzene	ND	1.0	99	102	3.0	98	105	6.9	70 - 130	30	
n-Propylbenzene	ND	1.0	94	96	2.1	98	103	5.0	70 - 130	30	
o-Xylene	ND	2.0	94	95	1.1	96	100	4.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	97	99	2.0	98	105	6.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	97	100	3.0	101	107	5.8	70 - 130	30	
Styrene	ND	5.0	95	95	0.0	94	97	3.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	92	96	4.3	97	102	5.0	70 - 130	30	
Tetrachloroethene	ND	5.0	96	99	3.1	97	105	7.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	94	95	1.1	93	94	1.1	70 - 130	30	
Toluene	ND	1.0	97	98	1.0	98	101	3.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	106	103	2.9	108	111	2.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	89	92	3.3	85	88	3.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	94	96	2.1	82	87	5.9	70 - 130	30	
Trichloroethene	ND	5.0	98	101	3.0	101	105	3.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	100	100	0.0	107	111	3.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	109	108	0.9	115	120	4.3	70 - 130	30	
Vinyl chloride	ND	5.0	106	105	0.9	110	113	2.7	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	103	3.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	101	101	0.0	101	100	1.0	70 - 130	30	
% Dibromofluoromethane	98	%	97	99	2.0	97	96	1.0	70 - 130	30	
% Toluene-d8	97	%	103	105	1.9	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 440644 (ug/Kg), QC Sample No: CA99736 2X (CA91709, CA91711)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	67	54	21.5	39	41	5.0	40 - 140	30	m
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	75	14.8	57	62	8.4	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	100	%	114	109	4.5	78	86	9.8	30 - 150	30	
% TCMX (Surrogate Rec)	83	%	98	95	3.1	64	66	3.1	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.

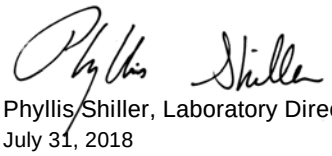
QA/QC Data

SDG I.D.: GCA91708

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
July 31, 2018

Tuesday, July 31, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	11000	1000	7800	7800	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	10000	1000	8400	8400	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3800	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	10000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3800	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2200	1000	1000	1000	ug/Kg
CA91708	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	220	200	200	200	ug/Kg
CA91708	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1400	260	500	500	mg/Kg
CA91708	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	22.4	0.67	10	10	mg/Kg
CA91708	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	22.4	0.67	10	10	mg/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	22000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	28000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	23000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	26000	1200	8400	8400	ug/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	22000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	19000	1300	8400	8400	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	23000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	28000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	37000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	22000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	26000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	19000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	110000	13000	40000	40000	ug/Kg
CA91709	$8100SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	45000	2700	40000	40000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	28000	1300	1000	1000	ug/Kg

Tuesday, July 31, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	23000	1300	1000	1000	ug/Kg
CA91709	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	350	200	200	200	ug/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	4800	290	2500	2500	mg/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4800	290	500	500	mg/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4800	290	2500	2500	mg/Kg
CA91709	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	15.4	0.79	10	10	mg/Kg
CA91709	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	15.4	0.79	10	10	mg/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2900	260	1000	1000	ug/Kg
CA91711	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	14.8	0.79	10	10	mg/Kg
CA91711	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.8	0.79	10	10	mg/Kg
CA91714	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1100	260	1000	1000	ug/Kg
CA91714	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	28.5	0.72	10	10	mg/Kg
CA91714	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	28.5	0.72	10	10	mg/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	4100	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	4400	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1300	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	4100	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1400	520	1000	1000	ug/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	2600	280	2500	2500	mg/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	2600	280	500	500	mg/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	2600	280	2500	2500	mg/Kg

Tuesday, July 31, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

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

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

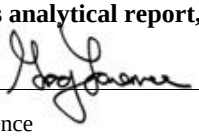
Laboratory Sample ID(s): CA91708, CA91709, CA91711, CA91712, CA91714, CA91715, CA91717, CA91719-CA91721 ***Sampling Date(s):*** 7/16/2018, 7/17/2018

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: ETPH Narration, 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:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, July 31, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

SDG Comments

8270 Semi-volatile Organics: CA91708, CA91709, CA91711, CA91712
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

Cyanide Narration

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

Instrument:

LACHAT 07/19/18-1 Eric Geyer, Chemist 07/19/18

CA91708

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 07/23/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/23/18

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/30/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/30/18

CA91711, CA91712

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 439437 (CA91086)

CA91708

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SDG I.D.: GCA91708

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

Batch 439830 (CA93881)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440745 (CA99405)

CA91711, CA91712

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

ETPH Narration

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

QC Batch 439334 (Samples: CA91708): -----

The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% n-Pentacosane)

QC Batch 439592 (Samples: CA91714): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Ext. Petroleum H.C. (C9-C36))

Instrument:

AU-FID1 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA91709

The initial calibration (ETPH717I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: CA91709
Preceding CC 720A003 - None.
Succeeding CC 720A016 - Pentacosane 39%H (30%)

AU-FID21 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA91720

The initial calibration (ETPH620I) 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 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA91721

The initial calibration (ETPH620I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/20/18-1 Jeff Bucko, Chemist 07/20/18

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

ETPH Narration

CA91715, CA91717, CA91719

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/27/18-1 Jeff Bucko, Chemist 07/27/18

CA91712

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/30/18-1 Jeff Bucko, Chemist 07/30/18

CA91711

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

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

CA91708

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: CA91708
Preceding CC 719A003 - None.
Succeeding CC 719A015 - Pentacosane 47%H (30%)

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

CA91714

The initial calibration (ETPH605I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 439334 (CA91307)

CA91708

All LCS recoveries were within 60 - 120 with the following exceptions: None.
The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.
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 439591 (CA93630)

CA91709

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 439592 (CA93879)

CA91714

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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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

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.

Batch 439728 (CA94567)

CA91715, CA91717, CA91719, CA91720, CA91721

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 440643 (CA99145)

CA91711, CA91712

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? No.

QC Batch 439699 (Samples: CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721): -----

The Sample/Duplicate RPD exceeds the method criteria, therefore there may be variability in the reported result.

Instrument:

MERLIN 07/19/18 08:13 Rick Schweitzer, Chemist 07/19/18

CA91708

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

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

July 31, 2018

SDG I.D.: GCA91708

Mercury Narration

MERLIN 07/23/18 08:10 Rick Schweitzer, Chemist 07/23/18

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/30/18 08:25 Rick Schweitzer, Chemist 07/30/18

CA91711, CA91712

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 439509 (CA91307)

CA91708

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

Batch 439515 (CA92953)

CA91708

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

Batch 439704 (CA93877)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440835 (CA99405)

CA91711, CA91712

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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Certification Report

July 31, 2018

SDG I.D.: GCA91708

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%.

Batch 440839 (CA99730)

CA91711, CA91712

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

QC (Site Specific):

Batch 439699 (CA91709)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

ICP Metals Narration

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

QC Batch 439411 (Samples: CA91708): -----

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- Copper(CA91708))

Instrument:

ARCOS 07/18/18 09:30 Emily Kolominskaya, Tina Hall, Chemist 07/18/18

CA91708

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 07/19/18 10:14 Emily Kolominskaya, Tina Hall, Chemist 07/19/18

CA91708

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 07/20/18 11:09 Emily Kolominskaya, Phyllis Shiller, Chemist 07/20/18

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Certification Report

July 31, 2018

SDG I.D.: GCA91708

ICP Metals Narration

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/28/18 07:01 Emily Kolominskaya, Chemist 07/28/18

CA91711, CA91712

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 07/30/18 09:50 Emily Kolominskaya, Chemist 07/30/18

CA91711, CA91712

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 439411 (CA91307)

CA91708

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

Batch 439518 (CA92748)

CA91708

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

Batch 439754 (CA91132)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440844 (CA99450)

CA91711, CA91712

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

QC (Site Specific):

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Certification Report

July 31, 2018

SDG I.D.: GCA91708

ICP Metals Narration

Batch 439804 (CA91717)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440729 (CA91712)

CA91711, CA91712

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 07/23/18-1 Adam Werner, Chemist 07/23/18

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

AU-ECD24 07/30/18-1 Adam Werner, Chemist 07/30/18

CA91709, CA91711

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

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

CA91708

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC605BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 439654 (CA94225)

CA91708

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

Batch 439789 (CA95173)

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440644 (CA99736)

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

PCB Narration

CA91709, CA91711

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 439785 (Samples: CA91714, CA91715, CA91717, CA91719, CA91720, CA91721): -----

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

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

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

The QC recoveries for one analyte are below the method criteria. A low bias is likely. (Benzoic Acid)

The QC recoveries for one analyte are below the lower range but within the method criteria. A low bias is possible.(Pyridine)

QC Batch 440641 (Samples: CA91711, CA91712): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes and the surrogates. Therefore there may be variability in the reported result. (Anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, Indeno(1,2,3-cd)pyrene, % 2-Fluorobiphenyl, % Nitrobenzene-d5, % Terphenyl-d14)

Instrument:

CHEM06 07/27/18-1 Matt Richard, Chemist 07/27/18

CA91711, CA91712

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_0627):
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 (CHEM06/0727_04-BN_0627):
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.

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

SVOA Narration

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

CHEM19 07/19/18-2 Keith Aloisa, Chemist 07/19/18

CA91708

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_0717):
95% 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 (CHEM19/0719_02-SPLIT_0717):
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 07/21/18-1 Matt Richard, Chemist 07/21/18

CA91714, CA91715, CA91717, CA91719, CA91720

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_0717):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 43% (20%), Benzidine 24% (20%), Pentachlorophenol 22% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0721_02-SPLIT_0717):
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: Bis(2-chloroethyl)ether 0.683 (0.7), Hexachlorobenzene 0.094 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 07/23/18-1 Harry Mullin, Chemist 07/23/18

CA91709

Initial Calibration Verification (CHEM27/SPLIT_0722):
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 (CHEM27/0723_02-SPLIT_0722):

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

SVOA 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.

CHEM28 07/23/18-1 Keith Aloisa, Chemist 07/23/18

CA91721

Initial Calibration Verification (CHEM28/SPLIT_0717):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 37% (20%), 4,6-Dinitro-2-methylphenol 36% (20%), Benzidine 24% (20%), Benzoic acid 26% (20%), Hexachlorocyclopentadiene 24% (20%), Pentachlorophenol 31% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM28/0723_06-SPLIT_0717):
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: 4-Nitrophenol 32%H (30%), Benzoic acid 73%H (30%)
The following compounds did not meet maximum % deviations: Benzoic acid 73%H (40%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM29 07/21/18-1 Matt Richard, Chemist 07/21/18

CA91709

Initial Calibration Verification (CHEM29/BN_0614):
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 (CHEM29/0721_08-BN_0614):
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 439329 (CA91994)

CA91708

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%)

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

SVOA Narration

Batch 439785 (CA95183)

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(10%), 4,6-Dinitro-2-methylphenol(28%), Benzoic Acid(<10%), Pyridine(27%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(15%), Benzoic Acid(<10%), Pyridine(29%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(60.5%)
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 439787 (CA94567)

CA91709

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%)

Batch 440641 (CA99009)

CA91711, CA91712

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: % 2-Fluorobiphenyl(46.4%), % Nitrobenzene-d5(38.4%), % Terphenyl-d14(49.1%), Anthracene(32.3%), Benzo(a)pyrene(30.9%), Benzo(b)fluoranthene(31.3%), Chrysene(30.9%), Indeno(1,2,3-cd)pyrene(31.6%)
This batch consists of a Blank, LCS, LCSD and MS.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 439719 (Samples: CA91714, CA91715, CA91719, CA91720, CA91721): -----

The LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (2-Hexanone, Methyl ethyl ketone, Methylene chloride)

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

QC Batch 439968 (Samples: CA91708, CA91709, CA91714, CA91719, CA91720, CA91721): -----

The LCS and Batch MS/MSD recoveries are below the lower range but within the method criteria. A slight low bias is possible. (Acetone)

Instrument:

CHEM03 07/19/18-1 Jane Li, Chemist 07/19/18

CA91708

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

VOA Narration

Initial Calibration Verification (CHEM03/VT-L0714):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: trans-1,4-dichloro-2-butene 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 (CHEM03/0719L02-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

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

CA91714, CA91715, CA91719, CA91720, CA91721

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

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

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

CA91708, CA91709, CA91714, CA91719, CA91720, CA91721

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

Continuing Calibration Verification (CHEM03/0720L02-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM14 07/27/18-2 Jane Li, Chemist 07/27/18

CA91711, CA91712

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

VOA Narration

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

Continuing Calibration Verification (CHEM14/0727_37-VT-0725):
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 07/28/18-1 Jane Li, Chemist 07/28/18

CA91711

Initial Calibration Verification (CHEM14/VT-0725):
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 (CHEM14/0728_02-VT-0725):
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 07/21/18-1 Jane Li, Chemist 07/21/18

CA91709

Initial Calibration Verification (CHEM26/VT-0718):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 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 (CHEM26/0721_02-VT-0718):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 439719 (CA93486)

CA91714, CA91715, CA91719, CA91720, CA91721

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RCP Certification Report

July 31, 2018

SDG I.D.: GCA91708

VOA Narration

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(61%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(66%), Acetone(54%), Methyl ethyl ketone(61%), Methylene chloride(68%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 439723 (CA90365)

CA91708

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%.

Batch 439961 (CA94870)

CA91709

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%.

Batch 439968 (CA94060)

CA91708, CA91709, CA91714, CA91719, CA91720, CA91721

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

Batch 440852 (CA99223)

CA91711, CA91712

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%.

Batch 440867 (CA99219)

CA91711

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%.

Temperature Narration

The samples in this delivery group were received at 5.4°C.
(Note acceptance criteria for relevant matrices 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 5.4 °C Pg 1 of 2

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwing@Tighebond.com

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

Project: Rexhame MGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 150755-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/17/19

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; PAHs; EPH; RCRA metals; SPLP RCRA metals; Total Cyanide

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	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 [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle	VOC	PAHs	EPH	RCRA metals	SPLP RCRA metals	Total Cyanide
	~~SB-33 (1-3 ft)~~	S	~~7/16/19~~	~~15:00~~																
91708	SB-33 (5-7 ft)		7/17/19	13:40	3	1									X	X	X	X	X	X
91709	SB-34 (2-4 ft)		7/16/19	11:10	3	1														
91710	SB-35 (2-4 ft)			11:30	3	1														
91711	SB-36 (2-4 ft)			13:40	3	1														
91712	SB-37 (2-4 ft)			14:00	3	1														
91713	SB-38 (2-4 ft)			14:25	3	1														
91714	SB-42 (2-4 ft)			14:45	3	1														
91715	SB-41 (1-3 ft)			15:35	3	1														
91716	SB-40 (0-2 ft)		7/17/19	7:10	3	1														
91717	SB-47 (2-4 ft)			7:35	3	1														
91718	SB-43 (1-3 ft)			9:30	3	1														

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TRUCK	7/17/19	1307
			1503

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TIO185178A
Please hold samples pending add'l Hannl investigation

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

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

CHAIN OF CUSTODY RECORD

Temp 4 °C Pg 1 of 2

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@tighebond.com

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

Project: Revere MGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 15-0758-44B

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/17/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soil VOA Vials [X] methanol [X] 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
91719	SB-44 (1-3 ft)	S	7/17/18	9:45	X	X								
91720	SB-45 (0-2 ft)	↓	↓	11:00	X	X								
91721	SB-65 (1-3 ft)	↓	↓	11:50	X	X								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TTOWWW	7/17/18	15:03

Comments, Special Requirements or Regulations:

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
[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
[ ] Other G-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 22
Page 222 of 1282

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, July 18, 2018 10:12 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Sarah:

Analyze SB-33 (5-7) (91708) for the requested analysis. HOLD the remaining soil samples with unchecked analysis.

Thank you.
Lynn E. Willey, P.G., 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: Wednesday, July 18, 2018 10:04 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Cc: Benjamin P. Caswell <BCaswell@tighebond.com>
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

SO these I am leaving on hold. I did add criteria for when you do release.

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: Wednesday, July 18, 2018 9:54 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Sarah:

Good morning.

We submitted soil samples for a number of boring locations on the attached COCs. The majority of them are on hold at the moment. We had to pre-clear boreholes and will be completing additional samples this week. I need to see if there are deeper impacts before activating the samples that do not have analysis checked.

Also, we will need the GB PMC criteria.

Lynn E. Willey, P.G., 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: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT
CA91709	SB-34 2-4 FT
CA91710	SB-35 2-4 FT
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT
CA91714	SB-42 2-4 FT
CA91715	SB- 41 1-3 FT
CA91716	SB-46 0-2 FT
CA91717	SB-47 2-4 FT
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT
CA91720	SB-45 0-2 FT
CA91721	SB-65 1-3 FT

The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices 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.

Lynn E. Willey

From: clientservices@phoenixlabs.com
Sent: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT Add PCB
CA91709	SB-34 2-4 FT - Activate 7/19/18
CA91710	SB-35 2-4 FT HOLD
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT HOLD
CA91714	SB-42 2-4 FT - Activate 7/19/18
CA91715	SB- 41 1-3 FT - Activate 7/19/18
CA91716	SB-46 0-2 FT HOLD
CA91717	SB-47 2-4 FT - Activate 7/19/18
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT - Activate 7/19/18
CA91720	SB-45 0-2 FT - Activate 7/19/18
CA91721	SB-65 1-3 FT - Activate 7/19/18

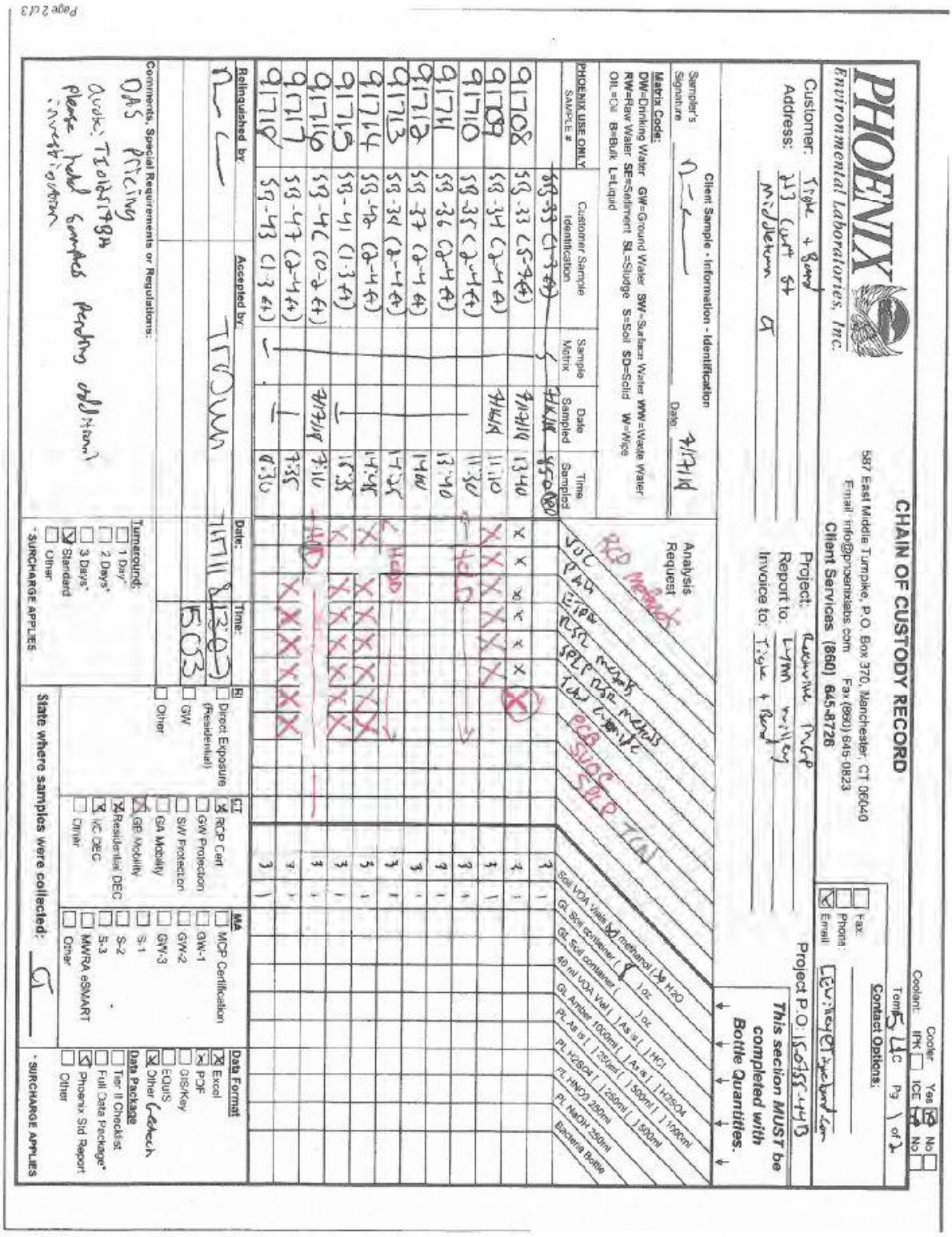


The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

1



PHOENIX

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

Environmental Laboratories, Inc.

Cooler: Yes / No
Coolant: IPK / ICE
Temp: 5.4C Pg 1 of 2

Contact Options:
Fax:
Phone:
Email:

Customer: Triple + Road
Address: 213 Court St
Middletown CT

Project: Revenue Prog
Report to: Lynn Mahony
Invoice to: Triple + Road

Project P.O.: [illegible]

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature]
Date: 9/17/19

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Settlement 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: VOC (624) EDB (Method 504.1) RCP VPH (MADEP) EPH (MADEP) SPLP RCP Metals TCLP Metals 1,4-Dioxane ECB SVOC SVOC TCLP	Soil VOA Vials (4) methanol (4) H2O	GL Soil collenner ( ) 1oz	GL Soil container ( ) 1oz	40 ml VOA Vial ( ) As is ( ) HCl	GL Amber 100ml ( ) As is ( ) H2SO4	PL As is ( ) 250ml ( ) 500ml ( ) 1000ml	PL HCl/SO4 ( ) 250ml ( ) 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
91708	SG-33 (25-45')	S	9/17/19	13:40	X X X X X X X	3	1								
91709	SG-34 (2-4')			11:10	X X X X X X X	3	1								
91710	SG-35 (2-4')			11:30	X X X X X X X	3	1								
91711	SG-36 (2-4')			13:40	X X X X X X X	3	1								
91712	SG-37 (2-4')			14:00	X X X X X X X	3	1								
91713	SG-38 (2-4')			14:25	X X X X X X X	3	1								
91714	SG-42 (2-4')			14:45	X X X X X X X	3	1								
91715	SG-41 (1-3')			15:35	X X X X X X X	3	1								
91716	SG-40 (0-2')		9/18/19	7:10	X X X X X X X	3	1								
91717	SG-47 (2-4')			7:35	X X X X X X X	3	1								
91718	SG-43 (1-3')			8:30	X X X X X X X	3	1								

Relinquished by: [signature] Date: 9/17/19 Time: 15:30

Accepted by: [signature] Date: 9/18/19 Time: 8:30

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: T20191904
Please hold samples pending additional instruction

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

EI
☐ 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

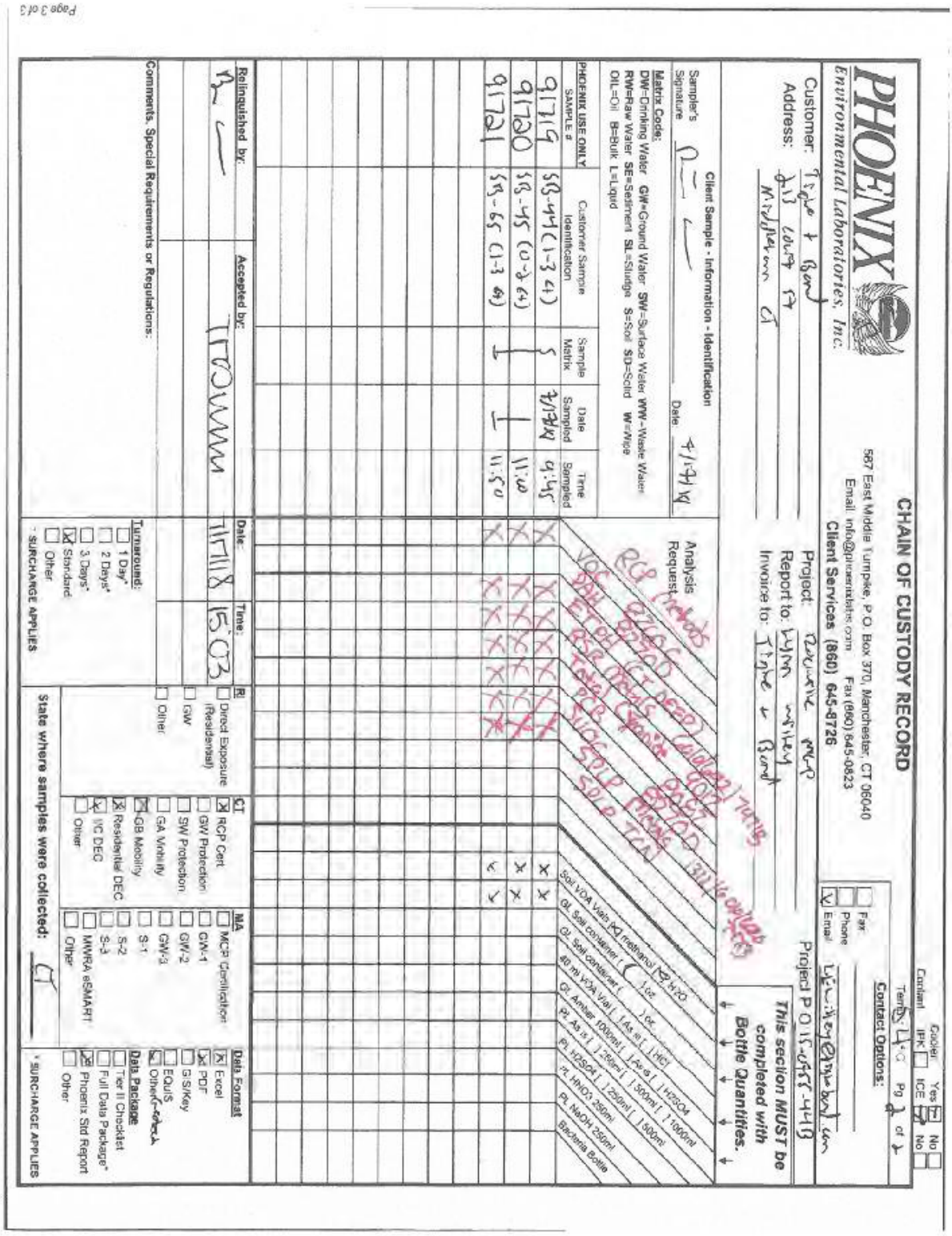
State where samples were collected: CT

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

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

*SURCHARGE APPLIES

Page 2 of 3



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
Cooler IPK / ICE
Temp: 4°C Pg 1 of 2

Contact Options:
Fax
Phone
Email

Customer: Tighe & Bond
Address: 53 Eames St
Windsor, CT

Project: Rocky Hill MGP
Report to: Mary Wahlen
Invoice to: Tighe & Bond

Project P.O.: 0155-0557-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sample's Signature: [signature] Date: 4/14/26

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
91719	SB-44(1-3 ft)	S	4/13/26	9:45
91720	SB-45 (0-3 ft)			11:00
91721	SB-45 (13 ft)			11:50

Analysis Request

Soil VOA Vials [X] methanol [X] H2O
GL Soil container [ ] 1oz
GL Soil container [ ] 1oz
40 ml VOA Vial [ ] As III [ ] HCl
GL Amber 100ml [ ] As V [ ] H2SO4
PL As IV [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 250ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by: [signature] Date: 4/15/26 Time: 15:03

Accepted by: [signature]

Comments, Special Requirements or Regulations:

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
[X] I/C DEC
[ ] Other

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

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

State where samples were collected: CT

*SURCHARGE APPLIES

Page 3 of 3

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, July 19, 2018 4:41 PM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: 2018-7-17-Tighe-Bond Rockville MGP COC -Additional analyses.pdf

Sarah:

Here is the first batch of the samples to active for Rockville that were collected on Monday 7/16 Tuesday 7/17. I have highlighted them in red. Also see the activation for PCB for SB-33 (5-7) (91708).

Let us know if there are any questions.

Thanks.

Lynn E. Willey, P.G., 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: Wednesday, July 18, 2018 10:04 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Cc: Benjamin P. Caswell <BCaswell@tighebond.com>
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

SO these I am leaving on hold. I did add criteria for when you do release.

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: Wednesday, July 18, 2018 9:54 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Sarah:

Good morning.

We submitted soil samples for a number of boring locations on the attached COCs. The majority of them are on hold at the moment. We had to pre-clear boreholes and will be completing additional samples this week. I need to see if there are deeper impacts before activating the samples that do not have analysis checked.

Also, we will need the GB PMC criteria.

Lynn E. Willey, P.G., 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: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT
CA91709	SB-34 2-4 FT
CA91710	SB-35 2-4 FT
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT
CA91714	SB-42 2-4 FT
CA91715	SB- 41 1-3 FT
CA91716	SB-46 0-2 FT
CA91717	SB-47 2-4 FT
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT
CA91720	SB-45 0-2 FT
CA91721	SB-65 1-3 FT

The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices 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: Friday, July 27, 2018 10:16 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: Additional Analyses
Attachments: Rockville MGP -Additional Analysis 7-27-18.pdf

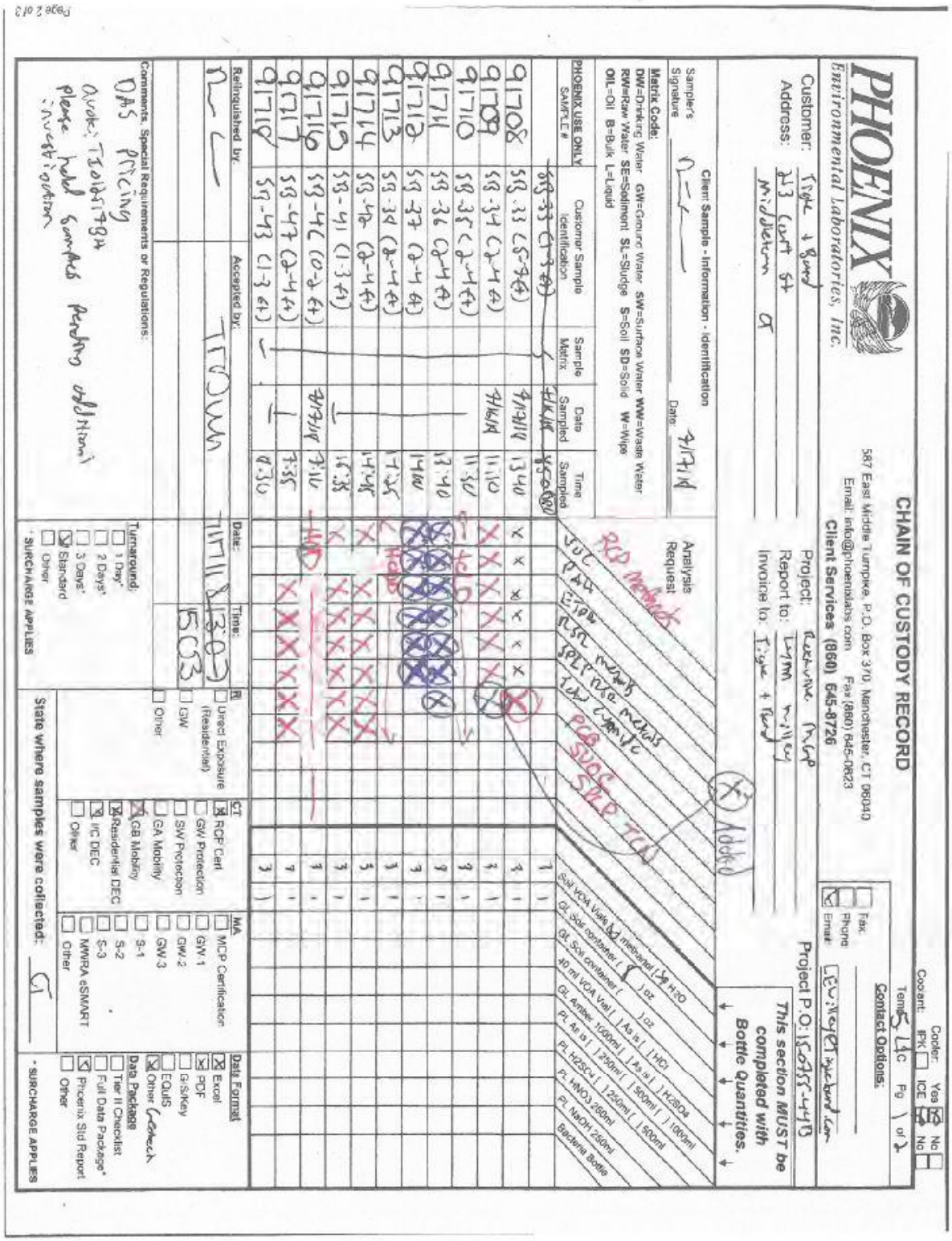
Sarah:

Please see the additional analyses for the attached COCs. They are still in hold time as long as they get analyzed before Tuesday.

Thanks.

Lynn E. Willey, P.G., 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.

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
IFK ICE
Temp 4.6c Pg 1 of 2
Contact Options:
Fax
Phone
Email

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

Project: Eversource Energy
Report to: Emily Eisley
Invoice to: Tighe & Bond

Project P.O.: [illegible]

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature
Date: 4/17/24

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
91708	SB-33 (2-4 ft)	Soil	4/17/24	13:40
91709	SB-34 (2-4 ft)	Soil	4/16/24	11:10
91710	SB-35 (2-4 ft)			11:30
91711	SB-36 (2-4 ft)			13:40
91712	SB-37 (2-4 ft)			14:00
91713	SB-38 (2-4 ft)			14:25
91714	SB-42 (2-4 ft)			14:45
91715	SB-41 (1-3 ft)			15:35
91716	SB-40 (0-2 ft)	Soil	4/16/24	7:10
91717	SB-47 (2-4 ft)			7:35
91718	SB-43 (1-3 ft)			8:30

Analysis Request

RCP Methods
VOC
PAH
EPH
RCP Metals
SPLP Metals
TPH Quantitation
PCB Soils
SVOC TCL

Bottle Quantities											
Solid VOA Vials w/ methanol ( ) H2O	1	1	1	1	1	1	1	1	1	1	1
8oz Soil container ( ) 1oz	1	1	1	1	1	1	1	1	1	1	1
8oz Soil container ( ) 4oz	1	1	1	1	1	1	1	1	1	1	1
40 ml VOA Vial ( ) As is ( ) HCl	3	3	3	3	3	3	3	3	3	3	3
8oz Amber 1040ml ( ) 250ml ( ) 500ml ( ) 1000ml	1	1	1	1	1	1	1	1	1	1	1
PL As is ( ) 250ml ( ) 500ml ( ) H2SO4	1	1	1	1	1	1	1	1	1	1	1
PL H2SO4 ( ) 250ml ( ) 500ml ( ) 1000ml	1	1	1	1	1	1	1	1	1	1	1
PL HNO3 250ml	1	1	1	1	1	1	1	1	1	1	1
PL NaOH 250ml	1	1	1	1	1	1	1	1	1	1	1
Bacteria Bottle	3	3	3	3	3	3	3	3	3	3	3

Relinquished by: [signature] Date: 4/17/24 Time: 1530
Accepted by: [signature] Date: 4/17/24 Time: 1530

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: T2018179A
Please hold samples pending additional investigation

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

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Certi
☐ 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
☐ EQuIS Key
☐ EQuIS
☒ Other Geotech

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

*SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 27, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA91708 - CA91709, CA91711 - CA91712, CA91714 - CA91715, CA91717, CA91719 - CA91721

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

November 27, 2018

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:		07/17/18	13:40
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91708

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 1.8	1.8	mg/Kg	1	07/19/18	EK	SW6010C	
Arsenic	22.4	0.67	mg/Kg	1	07/19/18	EK	SW6010C	
Barium	66.6	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Beryllium	0.33	0.27	mg/Kg	1	07/19/18	EK	SW6010C	
Cadmium	0.44	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Chromium	13.8	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Copper	34.2	0.34	mg/kg	1	07/19/18	EK	SW6010C	B
Mercury	0.04	0.03	mg/Kg	1	07/19/18	RS	SW7471B	
Nickel	11.0	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Lead	55.5	0.34	mg/Kg	1	07/19/18	EK	SW6010C	
Antimony	< 3.4	3.4	mg/Kg	1	07/19/18	EK	SW6010C	
Selenium	< 2.1	2.1	mg/Kg	1	07/19/18	EK	SW6010C	
SPLP Silver	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/19/18	EK	SW6010C	
SPLP Barium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/19/18	TH	SW6010C	
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/19/18	TH	SW6010C	
SPLP Chromium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Copper	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/19/18	RS	SW7470A	
SPLP Nickel	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Lead	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Antimony	< 0.02	0.02	mg/L	1	07/19/18	EK	SW6010C	
SPLP Selenium	< 0.020	0.020	mg/L	1	07/19/18	TH	SW6010C	
SPLP Thallium	< 0.005	0.005	mg/L	1	07/19/18	TH	SW6010C	
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/19/18	TH	SW6010C	
SPLP Zinc	0.015	0.010	mg/L	1	07/19/18	EK	SW6010C	
Thallium	< 3.0	3.0	mg/Kg	1	07/19/18	EK	SW6010C	

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/19/18	IQ/I	SW3010A
Vanadium	31.5	0.34	mg/Kg	1	07/19/18	EK	SW6010C
Zinc	38.1	0.34	mg/Kg	1	07/19/18	EK	SW6010C
Percent Solid	95		%		07/18/18	W	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.55	0.48	mg/Kg	1	07/19/18	EG	SW9012B
Soil Extraction for PCB	Completed				07/19/18	JA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/18/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/18/18	NTJ/V	SW3545A
Mercury Digestion	Completed				07/19/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/19/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/18/18	I	SW1312
Total Metals Digest	Completed				07/18/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1400	260	mg/Kg	5	07/19/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/19/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	133		%	5	07/19/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	07/21/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	98		%	10	07/21/18	AW	30 - 150 %
% TCMX	103		%	10	07/21/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/19/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
4-Chlorotoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	220	200	ug/Kg	50	07/19/18	JLI	SW8260C
Bromobenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Bromochloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	3.6	3.3	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Isopropylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
m&p-Xylene	19	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	640	360	ug/Kg	50	07/19/18	JLI	SW8260C
n-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
n-Propylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
o-Xylene	22	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
sec-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Styrene	5.3	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	360	ug/Kg	50	07/19/18	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	400	360	ug/Kg	50	07/19/18	JLI	SW8260C
Total Xylenes	41.0	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	720	ug/Kg	50	07/19/18	JLI	SW8260C
Trichloroethene	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	50	07/19/18	JLI	70 - 130 %
% Bromofluorobenzene	101		%	50	07/19/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/20/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	1900	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Acenaphthene	ND	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Acenaphthylene	2800	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Anthracene	1400	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Benz(a)anthracene	2700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(a)pyrene	4700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(b)fluoranthene	3800	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(ghi)perylene	10000	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Benzo(k)fluoranthene	2200	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Chrysene	3700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Dibenz(a,h)anthracene	1700	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Fluoranthene	3300	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Fluorene	ND	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	11000	1000	ug/Kg	5	07/19/18	KCA	SW8270D
Naphthalene	1300	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Phenanthrene	4000	1200	ug/Kg	5	07/19/18	KCA	SW8270D
Pyrene	7000	1200	ug/Kg	5	07/19/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	56		%	5	07/19/18	KCA	30 - 130 %
% Nitrobenzene-d5	57		%	5	07/19/18	KCA	30 - 130 %
% Terphenyl-d14	52		%	5	07/19/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-33 5-7 FT

Phoenix I.D.: CA91708

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:

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:
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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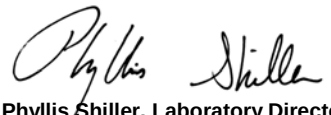

Phyllis Shiller, Laboratory Director
November 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 27, 2018

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:		07/16/18	11:10
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91709

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	15.4	0.79	mg/Kg	1	07/21/18	EK	SW6010C
Barium	69.2	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.86	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	16.4	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Copper	32.0	0.39	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.36	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	10.9	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Lead	79.4	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	0.016	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	0.013	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.015	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	20.6	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	48.2	0.39	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	86		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.39	0.58	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/27/18	BA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	NTJ/V	SW3545A
Extraction of CT ETPH	Completed				07/19/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4800	290	mg/Kg	5	07/20/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/20/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/20/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	57		%	10	07/30/18	AW	30 - 150 %
% TCMX	51		%	10	07/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	07/21/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	07/21/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	07/21/18	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Benzene	350	200	ug/Kg	50	07/20/18	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromodichloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Bromomethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Methylene chloride	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Naphthalene	2400	530	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrachloroethene	650	530	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Toluene	370	320	ug/Kg	50	07/20/18	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	1	07/21/18	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	07/21/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	07/21/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	07/21/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	07/21/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/21/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	4700	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Acenaphthylene	28000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Anthracene	14000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Benz(a)anthracene	28000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(a)pyrene	16000	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(b)fluoranthene	23000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	26000	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	19000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Chrysene	37000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	4400	1200	ug/Kg	10	07/21/18	KCA	SW8270D
Fluoranthene	50000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Fluorene	5800	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	22000	1300	ug/Kg	10	07/21/18	KCA	SW8270D
Naphthalene	6900	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Phenanthrene	45000	2700	ug/Kg	10	07/21/18	KCA	SW8270D
Pyrene	110000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-34 2-4 FT

Phoenix I.D.: CA91709

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:

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 27, 2018
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 27, 2018

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:		07/16/18	13:40
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91711

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Arsenic	14.8	0.79	mg/Kg	1	07/28/18	EK	SW6010C
Barium	71.6	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Beryllium	1.38	0.32	mg/Kg	1	07/28/18	EK	SW6010C
Cadmium	1.41	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Chromium	19.0	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Copper	40.7	0.8	mg/kg	1	07/28/18	EK	SW6010C
Mercury	0.44	0.03	mg/Kg	1	07/30/18	RS	SW7471B
Nickel	12.6	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Lead	82.8	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/28/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/28/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Arsenic	0.005	0.004	mg/L	1	07/31/18	EK	SW6010C
SPLP Barium	0.019	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/31/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/30/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Lead	0.015	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/31/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Zinc	0.086	0.010	mg/L	1	07/31/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/28/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/30/18	IQ/I	SW3010A
Vanadium	36.5	0.40	mg/Kg	1	07/28/18	EK	SW6010C
Zinc	140	0.8	mg/Kg	1	07/28/18	EK	SW6010C
Percent Solid	89		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	10.8	0.51	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/27/18	BA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/27/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BJ/VCK	SW3545A
Mercury Digestion	Completed				07/30/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/30/18	Q/I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/27/18	Q	SW1312
Total Metals Digest	Completed				07/27/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	280	270	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	5	07/30/18	AW	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	95		%	10	07/30/18	AW	30 - 150 %
% TCMX	84		%	10	07/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	200	170	ug/Kg	50	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	420	ug/Kg	50	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	850	ug/Kg	50	07/28/18	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	50	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	94		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	570	260	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthylene	5300	260	ug/Kg	1	07/28/18	KCA	SW8270D
Anthracene	920	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benz(a)anthracene	730	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(a)pyrene	2000	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(b)fluoranthene	1400	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(ghi)perylene	2900	260	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(k)fluoranthene	1200	260	ug/Kg	1	07/28/18	KCA	SW8270D
Chrysene	1000	260	ug/Kg	1	07/28/18	KCA	SW8270D
Dibenz(a,h)anthracene	420	260	ug/Kg	1	07/28/18	KCA	SW8270D
Fluoranthene	820	260	ug/Kg	1	07/28/18	KCA	SW8270D
Fluorene	730	260	ug/Kg	1	07/28/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	2500	260	ug/Kg	1	07/28/18	KCA	SW8270D
Naphthalene	770	260	ug/Kg	1	07/28/18	KCA	SW8270D
Phenanthrene	430	260	ug/Kg	1	07/28/18	KCA	SW8270D
Pyrene	1600	260	ug/Kg	1	07/28/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	07/28/18	KCA	30 - 130 %
% Nitrobenzene-d5	59		%	1	07/28/18	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/28/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-36 2-4 FT

Phoenix I.D.: CA91711

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:

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.

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 27, 2018
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 27, 2018

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:		07/16/18	14:00
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91712

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Arsenic	4.48	0.77	mg/Kg	1	07/28/18	EK	SW6010C
Barium	63.5	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Beryllium	0.58	0.31	mg/Kg	1	07/28/18	EK	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Chromium	19.7	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Copper	15.3	0.8	mg/kg	1	07/28/18	EK	SW6010C
Mercury	0.05	0.03	mg/Kg	1	07/30/18	RS	SW7471B
Nickel	10.8	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Lead	20.2	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/28/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/28/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	07/31/18	EK	SW6010C
SPLP Barium	0.013	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/31/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/30/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/31/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/31/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/31/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/28/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/30/18	IQ/I	SW3010A
Vanadium	35.8	0.39	mg/Kg	1	07/28/18	EK	SW6010C
Zinc	38.8	0.8	mg/Kg	1	07/28/18	EK	SW6010C
Percent Solid	84		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/27/18	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BJ/VCK	SW3545A
Mercury Digestion	Completed				07/30/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/30/18	Q/I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/27/18	Q	SW1312
Total Metals Digest	Completed				07/27/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	59	mg/Kg	1	07/28/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/28/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	07/28/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
m&p-Xylene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
o-Xylene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	07/28/18	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	96		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-37 2-4 FT

Phoenix I.D.: CA91712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(ghi)perylene	560	270	ug/Kg	1	07/28/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Chrysene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Fluoranthene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Fluorene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	530	270	ug/Kg	1	07/28/18	KCA	SW8270D
Naphthalene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Phenanthrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
Pyrene	ND	270	ug/Kg	1	07/28/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	34		%	1	07/28/18	KCA	30 - 130 %
% Nitrobenzene-d5	31		%	1	07/28/18	KCA	30 - 130 %
% Terphenyl-d14	31		%	1	07/28/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

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

Comments:

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 27, 2018
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 27, 2018

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:		07/16/18	14:45
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91714

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	28.5	0.72	mg/Kg	1	07/21/18	EK	SW6010C
Barium	92.0	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.35	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.38	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.5	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	21.5	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	8.87	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	44.6	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.027	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	24.7	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	70.6	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	90		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.89	0.56	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/19/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	140	54	mg/Kg	1	07/20/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/20/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	77		%	1	07/20/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	870	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	79		%	10	07/23/18	AW	30 - 150 %
% TCMX	71		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	470	360	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.2	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	1100	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	370	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	420	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	620	260	ug/Kg	1	07/21/18	KCA	SW8270D

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Phoenix I.D.: CA91714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	570	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	1100	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	530	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	730	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	710	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	500	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	870	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	900	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	89		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	57		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	66		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	66		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	74		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-42 2-4 FT

Phoenix I.D.: CA91714

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 C12 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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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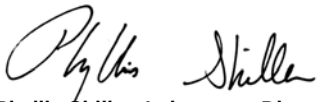

Phyllis Shiller, Laboratory Director
November 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 27, 2018

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:		07/16/18	15:35
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91715

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	6.81	0.79	mg/Kg	1	07/21/18	EK	SW6010C
Barium	75.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.57	0.32	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.47	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	17.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Copper	18.1	0.40	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.06	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.33	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Lead	30.1	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	27.9	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	80.6	0.40	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	79		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.63	0.63	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	53		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	420	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	84		%	10	07/23/18	AW	30 - 150 %
% TCMX	73		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	360	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	4.4	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	44	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	7.3	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	670	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	830	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	420	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	51		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	52		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	58		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	64		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	66		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/16/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-41 1-3 FT

Phoenix I.D.: CA91715

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

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

Comments:

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

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

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

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

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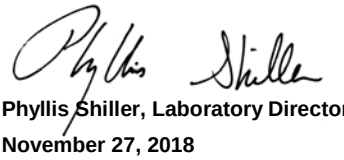

Phyllis Shiller, Laboratory Director
November 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 27, 2018

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:		07/17/18	7:35
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91717

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	1.93	0.75	mg/Kg	1	07/21/18	EK	SW6010C
Barium	49.4	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.35	0.30	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	12.0	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Copper	9.72	0.38	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	7.27	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Lead	13.4	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	0.011	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	23.1	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	20.8	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	91		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	10	07/23/18	AW	30 - 150 %
% TCMX	64		%	10	07/23/18	AW	30 - 150 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	370	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	400	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	730	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	860	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(b)fluoranthene	710	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	840	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	570	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	730	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	730	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	1700	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	810	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-47 2-4 FT

Phoenix I.D.: CA91717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	1300	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	1600	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	63		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	58		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	65		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	64		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	63		%	1	07/21/18	KCA	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.

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, 2018
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 27, 2018

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:		07/17/18	9:45
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91719

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	6.66	0.72	mg/Kg	1	07/21/18	EK	SW6010C
Barium	81.2	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.43	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.42	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	12.1	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	29.0	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.54	0.13	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.28	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	31.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	PS	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	30.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	74.4	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	89		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.82	0.51	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	140	55	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	82		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	10	07/23/18	AW	30 - 150 %
% TCMX	58		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
o-Xylene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrachloroethene	550	370	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	650	260	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	720	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	930	260	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
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Phoenix I.D.: CA91719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	870	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	910	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	890	260	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	750	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	810	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	720	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	800	260	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	890	260	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	270	260	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	990	260	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	51		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	68		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	63		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	70		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-44 1-3 FT

Phoenix I.D.: CA91719

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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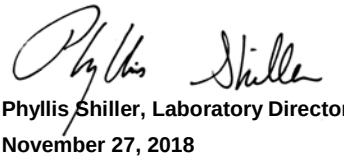

Phyllis Shiller, Laboratory Director
November 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 27, 2018

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:		07/17/18	11:00
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91720

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	2.23	0.82	mg/Kg	1	07/21/18	EK	SW6010C
Barium	76.3	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.54	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.41	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.6	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Copper	7.74	0.41	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	8.89	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Lead	5.52	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	29.1	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	28.9	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	81		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	62	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	07/21/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	410	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	89		%	10	07/23/18	AW	30 - 150 %
% TCMX	72		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
m&p-Xylene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
o-Xylene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	450	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	900	ug/Kg	50	07/20/18	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	50	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrophenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitroaniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
3-Nitroaniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	07/21/18	KCA	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Acetophenone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Aniline	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT

Phoenix I.D.: CA91720

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Benzoic acid	ND	820	ug/Kg	1	07/21/18	KCA	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Carbazole	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-butylphthalate	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Isophorone	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/21/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachloronitrobenzene	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Phenol	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	07/21/18	KCA	SW8270D
Pyridine	ND	410	ug/Kg	1	07/21/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	07/21/18	KCA	30 - 130 %
% 2-Fluorophenol	56		%	1	07/21/18	KCA	30 - 130 %
% Nitrobenzene-d5	63		%	1	07/21/18	KCA	30 - 130 %
% Phenol-d5	60		%	1	07/21/18	KCA	30 - 130 %
% Terphenyl-d14	76		%	1	07/21/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-45 0-2 FT
Phoenix I.D.: CA91720

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:
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.

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 27, 2018
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 27, 2018

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:		07/17/18	11:50
Location Code:	TIGHE-DAS	Received by:	LB	07/17/18	15:03
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	15-0755-44B				

Laboratory Data

SDG ID: GCA91708
Phoenix ID: CA91721

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 1.8	1.8	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	3.17	0.73	mg/Kg	1	07/21/18	EK	SW6010C
Barium	76.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.49	0.29	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	47.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Copper	22.6	0.36	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.10	0.03	mg/Kg	1	07/20/18	RS	SW7471B
Nickel	9.80	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Lead	79.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	0.149	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.02	0.02	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	07/21/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	28.8	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	35.3	0.36	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	88		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.18	0.52	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/20/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/20/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2600	280	mg/Kg	5	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	142		%	5	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/23/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	68		%	10	07/23/18	AW	30 - 150 %
% TCMX	59		%	10	07/23/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/20/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,1-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,2-Dichloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,2-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-65 1-3 FT

Phoenix I.D.: CA91721

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
1,3-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
2,2-Dichloropropane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
2-Chlorotoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
2-Hexanone	ND	45	ug/Kg	1	07/20/18	JLI	SW8260C
2-Isopropyltoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
4-Chlorotoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	45	ug/Kg	1	07/20/18	JLI	SW8260C
Acetone	ND	450	ug/Kg	1	07/20/18	JLI	SW8260C
Acrylonitrile	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Benzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromobenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Bromochloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromodichloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromoform	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Bromomethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon Disulfide	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Carbon tetrachloride	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chlorobenzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloroform	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Chloromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromochloromethane	ND	5.4	ug/Kg	1	07/20/18	JLI	SW8260C
Dibromomethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Dichlorodifluoromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Ethylbenzene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Hexachlorobutadiene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Isopropylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
m&p-Xylene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	54	ug/Kg	1	07/20/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Methylene chloride	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Naphthalene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
n-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
n-Propylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
o-Xylene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
p-Isopropyltoluene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
sec-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Styrene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
tert-Butylbenzene	ND	360	ug/Kg	50	07/20/18	JLI	SW8260C
Tetrachloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	18	ug/Kg	1	07/20/18	JLI	SW8260C
Toluene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Total Xylenes	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	710	ug/Kg	50	07/20/18	JLI	SW8260C
Trichloroethene	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorofluoromethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
Vinyl chloride	ND	8.9	ug/Kg	1	07/20/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	50	07/20/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	07/20/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/20/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/20/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dichlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dimethylphenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dinitrophenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Chloronaphthalene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Chlorophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Methylnaphthalene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
2-Nitroaniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
2-Nitrophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
3-Nitroaniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chloroaniline	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
4-Nitroaniline	ND	1200	ug/Kg	2	07/24/18	KCA	SW8270D
4-Nitrophenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acenaphthene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acenaphthylene	8400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Acetophenone	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Aniline	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Anthracene	2100	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benz(a)anthracene	650	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzidine	ND	300	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(a)pyrene	2700	520	ug/Kg	2	07/24/18	KCA	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	2700	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(ghi)perylene	4400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzo(k)fluoranthene	1400	520	ug/Kg	2	07/24/18	KCA	SW8270D
Benzoic acid	ND	1500	ug/Kg	2	07/24/18	KCA	SW8270D
Benzyl butyl phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Carbazole	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Chrysene	1300	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dibenz(a,h)anthracene	1200	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dibenzofuran	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Diethyl phthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Dimethylphthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Di-n-butylphthalate	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Di-n-octylphthalate	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Fluoranthene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Fluorene	790	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorobutadiene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Hexachloroethane	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	4100	520	ug/Kg	2	07/24/18	KCA	SW8270D
Isophorone	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Naphthalene	1700	520	ug/Kg	2	07/24/18	KCA	SW8270D
Nitrobenzene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	2	07/24/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Pentachloronitrobenzene	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Pentachlorophenol	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
Phenanthrene	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Phenol	ND	520	ug/Kg	2	07/24/18	KCA	SW8270D
Pyrene	930	520	ug/Kg	2	07/24/18	KCA	SW8270D
Pyridine	ND	740	ug/Kg	2	07/24/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	58		%	2	07/24/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	42		%	2	07/24/18	KCA	30 - 130 %
% 2-Fluorophenol	43		%	2	07/24/18	KCA	30 - 130 %
% Nitrobenzene-d5	45		%	2	07/24/18	KCA	30 - 130 %
% Phenol-d5	45		%	2	07/24/18	KCA	30 - 130 %
% Terphenyl-d14	35		%	2	07/24/18	KCA	30 - 130 %
Field Extraction	Completed				07/17/18		SW5035A

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

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

Comments:

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

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

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

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 27, 2018
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 27, 2018

QA/QC Data

SDG I.D.: GCA91708

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 439509 (mg/kg), QC Sample No: CA91307 (CA91708)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	89.8	89.0	0.9	96.0			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 439699 (mg/kg), QC Sample No: CA91709 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)														
Mercury - Soil	BRL	0.03	0.36	0.59	48.4	104	92.6	11.6	84.4			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 439515 (mg/L), QC Sample No: CA92953 (CA91708)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	89.7			92.6			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 439704 (mg/L), QC Sample No: CA93877 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	92.6			87.1			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 440835 (mg/kg), QC Sample No: CA99405 (CA91711, CA91712)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	106	98.4	7.4	117			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 440839 (mg/L), QC Sample No: CA99730 (CA91711, CA91712)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	86.5			98.3			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 439754 (mg/L), QC Sample No: CA91132 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	0.006	<0.005	NC	103			102			75 - 125	20	
Arsenic	BRL	0.004	0.009	<0.004	NC	101			99.4			75 - 125	20	
Barium	BRL	0.010	0.008	0.009	NC	98.6			98.0			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.7			99.7			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	103			103			75 - 125	20	
Chromium	BRL	0.010	0.002	0.001	NC	99.7			99.0			75 - 125	20	
Copper	BRL	0.010	0.004	0.004	NC	99.5			99.2			75 - 125	20	
Lead	BRL	0.010	0.003	<0.010	NC	100			100			75 - 125	20	
Nickel	BRL	0.010	0.006	0.003	NC	101			99.7			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	100			98.6			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	100			99.9			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	97.2			96.3			75 - 125	20	
Vanadium	BRL	0.010	0.032	0.032	NC	97.1			96.7			75 - 125	20	
Zinc	BRL	0.010	0.005	0.004	NC	102			101			75 - 125	20	

QA/QC Data

SDG I.D.: GCA91708

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 439411 (mg/kg), QC Sample No: CA91307 (CA91708)													
ICP Metals - Soil													
Antimony	BRL	3.0	<4.1	<4.5	NC	113			97.8			75 - 125	30
Arsenic	BRL	0.60	3.30	3.38	NC	107			94.6			75 - 125	30
Barium	BRL	0.30	87.8	73.6	17.6	116			89.6			75 - 125	30
Beryllium	BRL	0.24	0.54	0.63	NC	111			103			75 - 125	30
Cadmium	BRL	0.30	<0.41	<0.45	NC	100			94.4			75 - 125	30
Chromium	BRL	0.30	18.6	21.7	15.4	116			102			75 - 125	30
Copper	0.64	0.30	34.7	34.8	0.30	110			109			75 - 125	30
Lead	BRL	0.30	13.1	12.4	5.50	107			97.7			75 - 125	30
Nickel	BRL	0.30	11.5	13.6	16.7	103			98.7			75 - 125	30
Selenium	BRL	1.2	<1.6	<1.8	NC	113			81.9			75 - 125	30
Silver	BRL	0.30	<4.1	<0.45	NC	104			90.2			75 - 125	30
Thallium	BRL	2.7	<3.7	<4.1	NC	104			94.3			75 - 125	30
Vanadium	BRL	0.30	32.8	34.8	5.90	123			104			75 - 125	30
Zinc	BRL	0.30	52.5	60.7	14.5	108			99.6			75 - 125	30
QA/QC Batch 440729 (mg/kg), QC Sample No: CA91712 (CA91711, CA91712)													
ICP Metals - Soil													
Antimony	BRL	3.5	<3.9	<4.1	NC	98.9			94.7			75 - 125	30
Arsenic	BRL	0.70	4.48	4.87	8.30	98.4			93.7			75 - 125	30
Barium	BRL	0.35	63.5	60.5	4.80	96.9			99.7			75 - 125	30
Beryllium	BRL	0.28	0.58	0.49	NC	97.4			97.5			75 - 125	30
Cadmium	BRL	0.35	<0.39	<0.41	NC	94.9			94.1			75 - 125	30
Chromium	BRL	0.35	19.7	19.0	3.60	102			98.2			75 - 125	30
Copper	BRL	0.70	15.3	15.5	1.30	95.6			100			75 - 125	30
Lead	BRL	0.35	20.2	26.1	25.5	96.0			95.0			75 - 125	30
Nickel	BRL	0.35	10.8	10.1	6.70	97.5			95.9			75 - 125	30
Selenium	BRL	1.4	<1.5	<1.7	NC	109			81.4			75 - 125	30
Silver	BRL	0.35	<0.39	3.16	NC	101			98.6			75 - 125	30
Thallium	BRL	3.2	<3.5	<3.7	NC	96.7			91.9			75 - 125	30
Vanadium	BRL	0.35	35.8	32.3	10.3	107			97.9			75 - 125	30
Zinc	BRL	0.70	38.8	37.8	2.60	95.4			91.6			75 - 125	30
QA/QC Batch 439804 (mg/kg), QC Sample No: CA91717 (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.8	<3.7	NC	107			92.2			75 - 125	30
Arsenic	BRL	0.67	1.93	1.77	NC	108			90.3			75 - 125	30
Barium	BRL	0.33	49.4	51.2	3.60	112			103			75 - 125	30
Beryllium	BRL	0.27	0.35	0.35	NC	106			94.8			75 - 125	30
Cadmium	BRL	0.33	<0.38	<0.37	NC	101			90.8			75 - 125	30
Chromium	BRL	0.33	12.0	12.9	7.20	113			95.9			75 - 125	30
Copper	BRL	3.3	9.72	9.98	2.60	112			100			75 - 125	30
Lead	BRL	0.33	13.4	14.4	7.20	104			92.6			75 - 125	30
Nickel	BRL	0.33	7.27	7.67	5.40	103			93.9			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	118			79.1			75 - 125	30
Silver	BRL	0.33	<1.8	<0.37	NC	118			102			75 - 125	30
Thallium	BRL	3.0	<3.4	<3.3	NC	106			90.6			75 - 125	30
Vanadium	BRL	0.33	23.1	24.5	5.90	118			97.3			75 - 125	30
Zinc	BRL	0.33	20.8	21.2	1.90	106			90.5			75 - 125	30
QA/QC Batch 439518 (mg/L), QC Sample No: CA92748 (CA91708)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	90.2			100			75 - 125	20

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Arsenic	BRL	0.004	<0.004	<0.004	NC	89.1			96.0			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	88.2			97.0			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	88.0			97.6			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	90.1			98.0			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	88.5			96.3			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	88.6			98.8			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	89.4			96.8			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	88.4			96.2			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	89.9			99.2			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	88.3			95.9			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	84.6			91.6			75 - 125	20
Vanadium	BRL	0.010	0.012	0.013	NC	87.0			95.7			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	89.6			99.2			75 - 125	20
QA/QC Batch 440844 (mg/L), QC Sample No: CA99450 (CA91711, CA91712)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	103			98.6			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	102			96.1			75 - 125	20
Barium	BRL	0.010	0.013	0.013	NC	103			98.6			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	97.9			95.1			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	104			97.8			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	103			97.1			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	98.9			95.6			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	103			97.3			75 - 125	20
Nickel	BRL	0.010	0.018	0.015	NC	104			97.6			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	104			99.4			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	97.3			93.9			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	104			98.6			75 - 125	20
Vanadium	BRL	0.010	0.012	0.012	NC	97.7			94.0			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	104			97.7			75 - 125	20

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

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 27, 2018

QA/QC Data

SDG I.D.: GCA91708

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 439437 (mg/Kg), QC Sample No: CA91086 50X (CA91708)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.58	0.62	NC	102			106			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 439830 (mg/Kg), QC Sample No: CA93881 50X (CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	0.65	<0.57	NC	99.0			102			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 440745 (mg/Kg), QC Sample No: CA99405 50X (CA91711, CA91712)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.55	<0.55	NC	95.4			102			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 27, 2018

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 439334 (mg/Kg), QC Sample No: CA91307 (CA91708)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	103			73	97	28.2	60 - 120	30
% n-Pentacosane	53	%	108			81	88	8.3	50 - 150	30
Comment:										
The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.										
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 439591 (mg/Kg), QC Sample No: CA93630 (CA91709)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	94	93	1.1	124	146	16.3	60 - 120	30
% n-Pentacosane	81	%	67	61	9.4	82	95	14.7	50 - 150	30
Comment:										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 439592 (mg/Kg), QC Sample No: CA93879 (CA91714)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	88	79	10.8	75	71	5.5	60 - 120	30
% n-Pentacosane	64	%	91	84	8.0	96	83	14.5	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 439728 (mg/Kg), QC Sample No: CA94567 (CA91715, CA91717, CA91719, CA91720, CA91721)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	67	60	11.0	71	64	10.4	60 - 120	30
% n-Pentacosane	70	%	63	64	1.6	70	66	5.9	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 440643 (mg/Kg), QC Sample No: CA99145 (CA91711, CA91712)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	67	63	6.2	75	72	4.1	60 - 120	30
% n-Pentacosane	68	%	73	67	8.6	76	78	2.6	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.										
QA/QC Batch 439654 (ug/Kg), QC Sample No: CA94225 2X (CA91708)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	81	100	21.0	72	70	2.8	40 - 140	30
PCB-1221	ND	33							40 - 140	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	89	103	14.6	77	70	9.5	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	95	%	105	99	5.9	71	60	16.8	30 - 150	30	
% TCMX (Surrogate Rec)	86	%	88	101	13.8	74	74	0.0	30 - 150	30	
QA/QC Batch 439789 (ug/Kg), QC Sample No: CA95173 2X (CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	77	72	6.7	79	72	9.3	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	86	79	8.5	80	76	5.1	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	96	%	105	97	7.9	93	86	7.8	30 - 150	30	
% TCMX (Surrogate Rec)	91	%	90	87	3.4	90	83	8.1	30 - 150	30	
QA/QC Batch 440644 (ug/Kg), QC Sample No: CA99736 2X (CA91709, CA91711)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	67	54	21.5	39	41	5.0	40 - 140	30	m
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	75	14.8	57	62	8.4	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	100	%	114	109	4.5	78	86	9.8	30 - 150	30	
% TCMX (Surrogate Rec)	83	%	98	95	3.1	64	66	3.1	30 - 150	30	
QA/QC Batch 439329 (ug/kg), QC Sample No: CA91994 (CA91708)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	230	66	62	6.3	70	63	10.5	30 - 130	30	
Acenaphthene	ND	230	77	71	8.1	75	68	9.8	30 - 130	30	
Acenaphthylene	ND	230	71	65	8.8	67	61	9.4	30 - 130	30	
Anthracene	ND	230	74	71	4.1	71	68	4.3	30 - 130	30	
Benz(a)anthracene	ND	230	75	71	5.5	71	65	8.8	30 - 130	30	
Benzo(a)pyrene	ND	230	72	68	5.7	67	61	9.4	30 - 130	30	
Benzo(b)fluoranthene	ND	230	74	71	4.1	70	65	7.4	30 - 130	30	
Benzo(ghi)perylene	ND	230	71	65	8.8	64	60	6.5	30 - 130	30	
Benzo(k)fluoranthene	ND	230	79	73	7.9	73	67	8.6	30 - 130	30	
Chrysene	ND	230	78	72	8.0	74	68	8.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	76	71	6.8	71	63	11.9	30 - 130	30	
Fluoranthene	ND	230	79	73	7.9	71	66	7.3	30 - 130	30	
Fluorene	ND	230	76	70	8.2	73	67	8.6	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	72	68	5.7	68	62	9.2	30 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Naphthalene	ND	230	63	59	6.6	68	61	10.9	30 - 130	30
Phenanthrene	ND	230	75	71	5.5	71	66	7.3	30 - 130	30
Pyrene	ND	230	80	74	7.8	73	69	5.6	30 - 130	30
% 2-Fluorobiphenyl	68	%	71	67	5.8	76	68	11.1	30 - 130	30
% Nitrobenzene-d5	57	%	60	59	1.7	71	68	4.3	30 - 130	30
% Terphenyl-d14	68	%	76	71	6.8	72	68	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 439787 (ug/kg), QC Sample No: CA94567 (CA91709)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	59	53	10.7	53	55	3.7	30 - 130	30
Acenaphthene	ND	230	59	52	12.6	53	55	3.7	30 - 130	30
Acenaphthylene	ND	230	56	50	11.3	51	52	1.9	30 - 130	30
Anthracene	ND	230	59	53	10.7	49	52	5.9	30 - 130	30
Benz(a)anthracene	ND	230	59	52	12.6	42	46	9.1	30 - 130	30
Benzo(a)pyrene	ND	230	57	50	13.1	41	45	9.3	30 - 130	30
Benzo(b)fluoranthene	ND	230	60	55	8.7	45	46	2.2	30 - 130	30
Benzo(ghi)perylene	ND	230	60	52	14.3	52	55	5.6	30 - 130	30
Benzo(k)fluoranthene	ND	230	59	50	16.5	41	46	11.5	30 - 130	30
Chrysene	ND	230	58	51	12.8	43	48	11.0	30 - 130	30
Dibenz(a,h)anthracene	ND	230	61	53	14.0	59	60	1.7	30 - 130	30
Fluoranthene	ND	230	60	54	10.5	36	45	22.2	30 - 130	30
Fluorene	ND	230	60	52	14.3	56	57	1.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	62	54	13.8	52	55	5.6	30 - 130	30
Naphthalene	ND	230	62	56	10.2	58	59	1.7	30 - 130	30
Phenanthrene	ND	230	59	53	10.7	36	45	22.2	30 - 130	30
Pyrene	ND	230	60	54	10.5	39	48	20.7	30 - 130	30
% 2-Fluorobiphenyl	44	%	57	52	9.2	52	52	0.0	30 - 130	30
% Nitrobenzene-d5	39	%	55	49	11.5	65	60	8.0	30 - 130	30
% Terphenyl-d14	40	%	56	52	7.4	56	55	1.8	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 439785 (ug/kg), QC Sample No: CA95183 (CA91714, CA91715, CA91717, CA91719, CA91720, CA91721)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	56	53	5.5	51	52	1.9	30 - 130	30
1,2,4-Trichlorobenzene	ND	230	52	51	1.9	55	53	3.7	30 - 130	30
1,2-Dichlorobenzene	ND	180	46	46	0.0	46	46	0.0	30 - 130	30
1,2-Diphenylhydrazine	ND	230	53	49	7.8	51	51	0.0	30 - 130	30
1,3-Dichlorobenzene	ND	230	42	43	2.4	43	42	2.4	30 - 130	30
1,4-Dichlorobenzene	ND	230	44	44	0.0	44	44	0.0	30 - 130	30
2,4,5-Trichlorophenol	ND	230	64	59	8.1	57	58	1.7	30 - 130	30
2,4,6-Trichlorophenol	ND	130	62	58	6.7	56	56	0.0	30 - 130	30
2,4-Dichlorophenol	ND	130	62	59	5.0	56	57	1.8	30 - 130	30
2,4-Dimethylphenol	ND	230	63	58	8.3	60	60	0.0	30 - 130	30
2,4-Dinitrophenol	ND	230	10	<10	NC	36	32	11.8	30 - 130	30
2,4-Dinitrotoluene	ND	130	60	58	3.4	57	55	3.6	30 - 130	30
2,6-Dinitrotoluene	ND	130	60	57	5.1	55	56	1.8	30 - 130	30
2-Chloronaphthalene	ND	230	56	51	9.3	54	53	1.9	30 - 130	30
2-Chlorophenol	ND	230	56	50	11.3	53	50	5.8	30 - 130	30
2-Methylnaphthalene	ND	230	55	50	9.5	52	52	0.0	30 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylphenol (o-cresol)	ND	230	60	53	12.4	55	56	1.8	30 - 130	30	
2-Nitroaniline	ND	330	88	81	8.3	79	82	3.7	30 - 130	30	
2-Nitrophenol	ND	230	64	56	13.3	63	61	3.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	62	54	13.8	54	53	1.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	61	57	6.8	58	61	5.0	30 - 130	30	
3-Nitroaniline	ND	330	69	68	1.5	65	64	1.6	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	28	15	60.5	43	39	9.8	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	59	56	5.2	54	56	3.6	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	66	62	6.3	59	61	3.3	30 - 130	30	
4-Chloroaniline	ND	230	58	58	0.0	57	59	3.4	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	56	52	7.4	52	52	0.0	30 - 130	30	
4-Nitroaniline	ND	230	64	58	9.8	58	57	1.7	30 - 130	30	
4-Nitrophenol	ND	230	67	61	9.4	61	61	0.0	30 - 130	30	
Acenaphthene	ND	230	57	53	7.3	54	55	1.8	30 - 130	30	
Acenaphthylene	ND	130	53	50	5.8	50	51	2.0	30 - 130	30	
Acetophenone	ND	230	50	48	4.1	47	47	0.0	30 - 130	30	
Aniline	ND	330	41	39	5.0	43	42	2.4	30 - 130	30	
Anthracene	ND	230	59	54	8.8	52	55	5.6	30 - 130	30	
Benz(a)anthracene	ND	230	59	53	10.7	41	49	17.8	30 - 130	30	
Benzidine	ND	330	38	37	2.7	38	45	16.9	30 - 130	30	
Benzo(a)pyrene	ND	130	56	52	7.4	38	44	14.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	59	57	3.4	42	45	6.9	30 - 130	30	
Benzo(ghi)perylene	ND	230	61	56	8.5	40	45	11.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	61	55	10.3	41	47	13.6	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	<10	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	55	51	7.5	50	49	2.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	54	51	5.7	52	52	0.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	41	41	0.0	42	42	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	42	39	7.4	40	39	2.5	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	55	53	3.7	54	55	1.8	30 - 130	30	
Carbazole	ND	230	61	57	6.8	54	56	3.6	30 - 130	30	
Chrysene	ND	230	58	54	7.1	39	45	14.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	65	59	9.7	54	57	5.4	30 - 130	30	
Dibenzofuran	ND	230	57	52	9.2	52	52	0.0	30 - 130	30	
Diethyl phthalate	ND	230	59	57	3.4	56	55	1.8	30 - 130	30	
Dimethylphthalate	ND	230	58	54	7.1	55	54	1.8	30 - 130	30	
Di-n-butylphthalate	ND	670	59	55	7.0	51	52	1.9	30 - 130	30	
Di-n-octylphthalate	ND	230	63	59	6.6	58	61	5.0	30 - 130	30	
Fluoranthene	ND	230	62	57	8.4	15	31	69.6	30 - 130	30	m,r
Fluorene	ND	230	56	52	7.4	53	53	0.0	30 - 130	30	
Hexachlorobenzene	ND	130	61	54	12.2	54	57	5.4	30 - 130	30	
Hexachlorobutadiene	ND	230	55	53	3.7	57	55	3.6	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	41	36	13.0	19	17	11.1	30 - 130	30	m
Hexachloroethane	ND	130	47	47	0.0	49	48	2.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	64	60	6.5	42	48	13.3	30 - 130	30	
Isophorone	ND	130	52	48	8.0	51	49	4.0	30 - 130	30	
Naphthalene	ND	230	52	49	5.9	51	51	0.0	30 - 130	30	
Nitrobenzene	ND	130	55	51	7.5	53	52	1.9	30 - 130	30	
N-Nitrosodimethylamine	ND	230	36	36	0.0	38	30	23.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	59	52	12.6	55	53	3.7	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	58	55	5.3	54	54	0.0	30 - 130	30	
Pentachloronitrobenzene	ND	230	59	54	8.8	51	53	3.8	30 - 130	30	
Pentachlorophenol	ND	230	64	50	24.6	54	54	0.0	30 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Phenanthrene	ND	130	57	52	9.2	30	35	15.4	30 - 130	30	
Phenol	ND	230	55	50	9.5	53	53	0.0	30 - 130	30	
Pyrene	ND	230	64	59	8.1	25	39	43.8	30 - 130	30	m,r
Pyridine	ND	230	27	29	7.1	29	23	23.1	30 - 130	30	l,m
% 2,4,6-Tribromophenol	59	%	66	60	9.5	62	58	6.7	30 - 130	30	
% 2-Fluorobiphenyl	53	%	54	49	9.7	52	51	1.9	30 - 130	30	
% 2-Fluorophenol	48	%	49	49	0.0	50	45	10.5	30 - 130	30	
% Nitrobenzene-d5	53	%	54	52	3.8	54	52	3.8	30 - 130	30	
% Phenol-d5	53	%	57	51	11.1	53	51	3.8	30 - 130	30	
% Terphenyl-d14	59	%	61	56	8.5	49	52	5.9	30 - 130	30	

Comment:

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

QA/QC Batch 440641 (ug/kg), QC Sample No: CA99009 (CA91711, CA91712)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	52	62	17.5	62			30 - 130	30	
Acenaphthene	ND	230	56	69	20.8	64			30 - 130	30	
Acenaphthylene	ND	230	55	65	16.7	62			30 - 130	30	
Anthracene	ND	230	58	72	21.5	67			30 - 130	30	
Benz(a)anthracene	ND	230	59	73	21.2	68			30 - 130	30	
Benzo(a)pyrene	ND	230	57	71	21.9	66			30 - 130	30	
Benzo(b)fluoranthene	ND	230	60	74	20.9	67			30 - 130	30	
Benzo(ghi)perylene	ND	230	55	67	19.7	65			30 - 130	30	
Benzo(k)fluoranthene	ND	230	59	71	18.5	68			30 - 130	30	
Chrysene	ND	230	57	71	21.9	66			30 - 130	30	
Dibenz(a,h)anthracene	ND	230	60	72	18.2	70			30 - 130	30	
Fluoranthene	ND	230	58	71	20.2	68			30 - 130	30	
Fluorene	ND	230	57	68	17.6	64			30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	61	77	23.2	72			30 - 130	30	
Naphthalene	ND	230	52	65	22.2	62			30 - 130	30	
Phenanthrene	ND	230	57	69	19.0	64			30 - 130	30	
Pyrene	ND	230	59	71	18.5	68			30 - 130	30	
% 2-Fluorobiphenyl	70	%	47	69	37.9	65			30 - 130	30	r
% Nitrobenzene-d5	58	%	44	59	29.1	60			30 - 130	30	
% Terphenyl-d14	65	%	47	71	40.7	68			30 - 130	30	r

Comment:

This batch consists of a Blank, LCS, LCSD and MS.

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 439723 (ug/kg), QC Sample No: CA90365 (CA91708 (50X))

Volatiles - Soil

1,1,2,2-Tetrachloroethane	ND	3.0	101	100	1.0	91	92	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	100	94	6.2	94	103	9.1	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	93	93	0.0	85	88	3.5	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	102	92	10.3	96	105	9.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	97	93	4.2	95	99	4.1	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	96	93	3.2	93	97	4.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	97	94	3.1	94	98	4.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	97	92	5.3	95	99	4.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	95	91	4.3	93	97	4.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	96	93	3.2	93	97	4.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Isopropyltoluene	ND	5.0	105	103	1.9	103	107	3.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	96	90	6.5	92	96	4.3	70 - 130	30	
Benzene	ND	1.0	93	92	1.1	91	93	2.2	70 - 130	30	
Bromobenzene	ND	5.0	98	95	3.1	95	98	3.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	99	92	7.3	99	105	5.9	70 - 130	30	
Isopropylbenzene	ND	1.0	95	93	2.1	92	96	4.3	70 - 130	30	
Naphthalene	ND	5.0	103	99	4.0	92	100	8.3	70 - 130	30	
n-Butylbenzene	ND	1.0	99	92	7.3	97	102	5.0	70 - 130	30	
n-Propylbenzene	ND	1.0	96	92	4.3	93	97	4.2	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	94	5.2	98	102	4.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	100	97	3.0	98	102	4.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	96	94	2.1	93	97	4.2	70 - 130	30	
Toluene	ND	1.0	93	92	1.1	93	95	2.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	116	116	0.0	102	104	1.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	100	0.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	101	101	0.0	101	101	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 439719 (ug/kg), QC Sample No: CA93486 (CA91714, CA91715, CA91719, CA91720, CA91721)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	100	86	15.1	94	97	3.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	96	85	12.2	94	95	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	96	81	16.9	87	93	6.7	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	89	79	11.9	84	87	3.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	84	74	12.7	82	84	2.4	70 - 130	30	
1,1-Dichloroethene	ND	5.0	93	81	13.8	90	91	1.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	95	85	11.1	91	94	3.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	91	78	15.4	94	72	26.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	87	76	13.5	80	86	7.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	91	77	16.7	97	72	29.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	96	82	15.7	84	89	5.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	99	86	14.1	97	93	4.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	95	82	14.7	86	90	4.5	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	93	80	15.0	94	83	12.4	70 - 130	30	
1,2-Dichloroethane	ND	5.0	91	79	14.1	85	88	3.5	70 - 130	30	
1,2-Dichloropropane	ND	5.0	89	78	13.2	86	87	1.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	96	83	14.5	88	93	5.5	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	94	80	16.1	79	84	6.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	91	79	14.1	84	87	3.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	78	16.5	77	81	5.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	101	82	20.8	93	94	1.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	95	81	15.9	86	90	4.5	70 - 130	30	
2-Hexanone	ND	25	76	66	14.1	77	73	5.3	70 - 130	30	I
2-Isopropyltoluene	ND	5.0	105	91	14.3	96	102	6.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	93	79	16.3	81	85	4.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	79	70	12.1	73	76	4.0	70 - 130	30	
Acetone	ND	10	61	54	12.2	65	64	1.6	70 - 130	30	I,m
Acrylonitrile	ND	5.0	84	73	14.0	72	74	2.7	70 - 130	30	
Benzene	ND	1.0	93	81	13.8	88	91	3.4	70 - 130	30	
Bromobenzene	ND	5.0	96	82	15.7	85	90	5.7	70 - 130	30	
Bromochloromethane	ND	5.0	96	82	15.7	89	91	2.2	70 - 130	30	
Bromodichloromethane	ND	5.0	96	85	12.2	91	93	2.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bromoform	ND	5.0	104	90	14.4	90	95	5.4	70 - 130	30	
Bromomethane	ND	5.0	117	89	27.2	111	117	5.3	70 - 130	30	
Carbon Disulfide	ND	5.0	109	95	13.7	102	105	2.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	99	87	12.9	81	83	2.4	70 - 130	30	
Chlorobenzene	ND	5.0	94	81	14.9	86	88	2.3	70 - 130	30	
Chloroethane	ND	5.0	102	82	21.7	103	105	1.9	70 - 130	30	
Chloroform	ND	5.0	94	82	13.6	90	92	2.2	70 - 130	30	
Chloromethane	ND	5.0	95	84	12.3	91	94	3.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	84	12.3	90	92	2.2	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	94	83	12.4	85	88	3.5	70 - 130	30	
Dibromochloromethane	ND	3.0	106	92	14.1	96	101	5.1	70 - 130	30	
Dibromomethane	ND	5.0	91	81	11.6	85	88	3.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	127	111	13.4	121	123	1.6	70 - 130	30	
Ethylbenzene	ND	1.0	96	83	14.5	90	93	3.3	70 - 130	30	
Hexachlorobutadiene	ND	5.0	98	82	17.8	101	87	14.9	70 - 130	30	
Isopropylbenzene	ND	1.0	97	82	16.8	90	95	5.4	70 - 130	30	
m&p-Xylene	ND	2.0	98	84	15.4	90	92	2.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	61	15.2	76	71	6.8	70 - 130	30	I
Methyl t-butyl ether (MTBE)	ND	1.0	99	84	16.4	94	95	1.1	70 - 130	30	
Methylene chloride	ND	5.0	79	68	15.0	76	77	1.3	70 - 130	30	I
Naphthalene	ND	5.0	94	81	14.9	92	79	15.2	70 - 130	30	
n-Butylbenzene	ND	1.0	97	82	16.8	81	87	7.1	70 - 130	30	
n-Propylbenzene	ND	1.0	96	83	14.5	86	92	6.7	70 - 130	30	
o-Xylene	ND	2.0	96	83	14.5	90	93	3.3	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	84	16.4	86	93	7.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	101	87	14.9	92	98	6.3	70 - 130	30	
Styrene	ND	5.0	96	83	14.5	84	86	2.4	70 - 130	30	
tert-Butylbenzene	ND	1.0	97	84	14.4	90	96	6.5	70 - 130	30	
Tetrachloroethene	ND	5.0	95	84	12.3	89	91	2.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	84	74	12.7	77	80	3.8	70 - 130	30	
Toluene	ND	1.0	93	82	12.6	88	90	2.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	94	82	13.6	90	93	3.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	92	80	14.0	81	84	3.6	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	108	91	17.1	83	90	8.1	70 - 130	30	
Trichloroethene	ND	5.0	96	85	12.2	92	93	1.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	113	97	15.2	109	112	2.7	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	105	91	14.3	102	104	1.9	70 - 130	30	
Vinyl chloride	ND	5.0	110	96	13.6	106	109	2.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	99	1.0	98	99	1.0	70 - 130	30	
% Bromofluorobenzene	100	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Dibromofluoromethane	95	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Toluene-d8	103	%	98	99	1.0	99	99	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 439968 (ug/kg), QC Sample No: CA94060 (CA91708, CA91709 (50X) , CA91714 (50X) , CA91719 (50X) , CA91720 (50X) , CA91721 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	100	101	1.0	100	101	1.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	94	95	1.1	90	91	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	100	2.0	95	93	2.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	92	92	0.0	95	93	2.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	83	85	2.4	80	80	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1-Dichloroethene	ND	5.0	91	92	1.1	76	75	1.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	94	94	0.0	95	95	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	96	98	2.1	97	100	3.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	92	93	1.1	86	85	1.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	95	99	4.1	99	101	2.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	94	96	2.1	95	96	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	101	105	3.9	100	97	3.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	96	97	1.0	97	96	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	92	95	3.2	95	95	0.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	92	93	1.1	93	91	2.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	90	91	1.1	91	91	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	94	97	3.1	95	96	1.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	93	96	3.2	97	97	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	92	93	1.1	93	92	1.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	94	2.2	94	95	1.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	98	96	2.1	92	94	2.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	93	95	2.1	94	95	1.1	70 - 130	30	
2-Hexanone	ND	25	80	80	0.0	77	73	5.3	70 - 130	30	
2-Isopropyltoluene	ND	5.0	102	104	1.9	104	105	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	92	94	2.2	93	95	2.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	85	85	0.0	83	79	4.9	70 - 130	30	
Acetone	ND	10	68	70	2.9	59	68	14.2	70 - 130	30	l,m
Acrylonitrile	ND	5.0	87	89	2.3	87	82	5.9	70 - 130	30	
Benzene	ND	1.0	92	92	0.0	92	92	0.0	70 - 130	30	
Bromobenzene	ND	5.0	95	97	2.1	97	97	0.0	70 - 130	30	
Bromochloromethane	ND	5.0	95	95	0.0	93	92	1.1	70 - 130	30	
Bromodichloromethane	ND	5.0	97	98	1.0	96	97	1.0	70 - 130	30	
Bromoform	ND	5.0	107	110	2.8	101	100	1.0	70 - 130	30	
Bromomethane	ND	5.0	109	105	3.7	92	91	1.1	70 - 130	30	
Carbon Disulfide	ND	5.0	105	108	2.8	72	77	6.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	83	83	0.0	75	77	2.6	70 - 130	30	
Chlorobenzene	ND	5.0	93	94	1.1	94	95	1.1	70 - 130	30	
Chloroethane	ND	5.0	97	97	0.0	86	89	3.4	70 - 130	30	
Chloroform	ND	5.0	92	94	2.2	89	89	0.0	70 - 130	30	
Chloromethane	ND	5.0	92	92	0.0	80	80	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	94	95	1.1	93	92	1.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	95	96	1.0	96	96	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	108	109	0.9	104	105	1.0	70 - 130	30	
Dibromomethane	ND	5.0	93	94	1.1	94	93	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	112	113	0.9	99	99	0.0	70 - 130	30	
Ethylbenzene	ND	1.0	94	95	1.1	95	96	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	94	98	4.2	103	105	1.9	70 - 130	30	
Isopropylbenzene	ND	1.0	93	95	2.1	93	95	2.1	70 - 130	30	
m&p-Xylene	ND	2.0	95	98	3.1	96	98	2.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	75	74	1.3	72	68	5.7	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	102	103	1.0	92	89	3.3	70 - 130	30	
Methylene chloride	ND	5.0	79	81	2.5	72	77	6.7	70 - 130	30	
Naphthalene	ND	5.0	98	100	2.0	100	99	1.0	70 - 130	30	
n-Butylbenzene	ND	1.0	94	98	4.2	97	98	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	92	95	3.2	94	95	1.1	70 - 130	30	
o-Xylene	ND	2.0	94	96	2.1	97	98	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	95	99	4.1	97	99	2.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	97	100	3.0	98	100	2.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Styrene	ND	5.0	96	98	2.1	98	98	0.0	70 - 130	30
tert-Butylbenzene	ND	1.0	93	95	2.1	93	96	3.2	70 - 130	30
Tetrachloroethene	ND	5.0	93	94	1.1	99	100	1.0	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	88	88	0.0	85	80	6.1	70 - 130	30
Toluene	ND	1.0	92	93	1.1	94	95	1.1	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	93	95	2.1	83	84	1.2	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	95	94	1.1	95	93	2.1	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	111	113	1.8	103	101	2.0	70 - 130	30
Trichloroethene	ND	5.0	95	96	1.0	95	97	2.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	106	107	0.9	94	92	2.2	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	102	101	1.0	87	82	5.9	70 - 130	30
Vinyl chloride	ND	5.0	105	105	0.0	87	89	2.3	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	99	100	1.0	99	99	0.0	70 - 130	30
% Bromofluorobenzene	100	%	100	100	0.0	101	100	1.0	70 - 130	30
% Dibromofluoromethane	96	%	102	101	1.0	99	100	1.0	70 - 130	30
% Toluene-d8	103	%	99	99	0.0	100	99	1.0	70 - 130	30

Comment:

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

QA/QC Batch 439961 (ug/kg), QC Sample No: CA94870 (CA91709)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	96	97	1.0	102	95	7.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	97	95	2.1	102	95	7.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	100	1.0	105	91	14.3	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	97	95	2.1	100	95	5.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	100	99	1.0	100	94	6.2	70 - 130	30
1,1-Dichloroethene	ND	5.0	98	99	1.0	107	96	10.8	70 - 130	30
1,1-Dichloropropene	ND	5.0	98	99	1.0	106	97	8.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	93	96	3.2	102	91	11.4	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	92	93	1.1	97	92	5.3	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	91	95	4.3	104	90	14.4	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	98	3.1	105	82	24.6	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	97	98	1.0	104	103	1.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	95	96	1.0	98	95	3.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	92	93	1.1	102	90	12.5	70 - 130	30
1,2-Dichloroethane	ND	5.0	93	93	0.0	94	87	7.7	70 - 130	30
1,2-Dichloropropane	ND	5.0	100	99	1.0	102	95	7.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	98	100	2.0	107	95	11.9	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	92	94	2.2	102	90	12.5	70 - 130	30
1,3-Dichloropropane	ND	5.0	95	95	0.0	99	93	6.3	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	89	91	2.2	100	87	13.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	100	103	3.0	94	92	2.2	70 - 130	30
2-Chlorotoluene	ND	5.0	95	98	3.1	105	96	9.0	70 - 130	30
2-Hexanone	ND	25	95	95	0.0	87	84	3.5	70 - 130	30
2-Isopropyltoluene	ND	5.0	106	108	1.9	115	107	7.2	70 - 130	30
4-Chlorotoluene	ND	5.0	94	95	1.1	101	90	11.5	70 - 130	30
4-Methyl-2-pentanone	ND	25	99	102	3.0	92	90	2.2	70 - 130	30
Acetone	ND	10	86	88	2.3	79	91	14.1	70 - 130	30
Acrylonitrile	ND	5.0	101	99	2.0	92	88	4.4	70 - 130	30
Bromobenzene	ND	5.0	95	95	0.0	104	95	9.0	70 - 130	30
Bromochloromethane	ND	5.0	97	96	1.0	102	96	6.1	70 - 130	30
Bromodichloromethane	ND	5.0	97	96	1.0	98	93	5.2	70 - 130	30
Bromoform	ND	5.0	96	96	0.0	97	93	4.2	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bromomethane	ND	5.0	107	104	2.8	111	103	7.5	70 - 130	30
Carbon Disulfide	ND	5.0	107	109	1.9	110	103	6.6	70 - 130	30
Carbon tetrachloride	ND	5.0	97	99	2.0	101	95	6.1	70 - 130	30
Chlorobenzene	ND	5.0	94	94	0.0	101	93	8.2	70 - 130	30
Chloroethane	ND	5.0	111	110	0.9	115	106	8.1	70 - 130	30
Chloroform	ND	5.0	94	95	1.1	96	92	4.3	70 - 130	30
Chloromethane	ND	5.0	105	105	0.0	99	90	9.5	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	100	100	0.0	105	102	2.9	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	102	1.0	103	97	6.0	70 - 130	30
Dibromochloromethane	ND	3.0	100	100	0.0	102	98	4.0	70 - 130	30
Dibromomethane	ND	5.0	93	93	0.0	98	91	7.4	70 - 130	30
Dichlorodifluoromethane	ND	5.0	102	106	3.8	106	98	7.8	70 - 130	30
Ethylbenzene	ND	1.0	96	97	1.0	96	89	7.6	70 - 130	30
Hexachlorobutadiene	ND	5.0	92	98	6.3	105	92	13.2	70 - 130	30
Isopropylbenzene	ND	1.0	100	101	1.0	109	102	6.6	70 - 130	30
m&p-Xylene	ND	2.0	94	95	1.1	84	78	7.4	70 - 130	30
Methyl ethyl ketone	ND	5.0	92	91	1.1	77	80	3.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	106	0.9	107	103	3.8	70 - 130	30
Methylene chloride	ND	5.0	82	81	1.2	105	101	3.9	70 - 130	30
n-Butylbenzene	ND	1.0	94	100	6.2	109	94	14.8	70 - 130	30
n-Propylbenzene	ND	1.0	96	99	3.1	107	94	12.9	70 - 130	30
o-Xylene	ND	2.0	98	101	3.0	95	87	8.8	70 - 130	30
p-Isopropyltoluene	ND	1.0	98	103	5.0	110	101	8.5	70 - 130	30
sec-Butylbenzene	ND	1.0	101	105	3.9	111	103	7.5	70 - 130	30
Styrene	ND	5.0	100	100	0.0	105	98	6.9	70 - 130	30
tert-Butylbenzene	ND	1.0	100	102	2.0	108	102	5.7	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	104	106	1.9	88	86	2.3	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	98	100	2.0	105	99	5.9	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	96	0.0	94	88	6.6	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	109	110	0.9	104	96	8.0	70 - 130	30
Trichloroethene	ND	5.0	96	97	1.0	108	102	5.7	70 - 130	30
Trichlorofluoromethane	ND	5.0	101	102	1.0	101	95	6.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	95	100	5.1	108	101	6.7	70 - 130	30
Vinyl chloride	ND	5.0	113	113	0.0	115	106	8.1	70 - 130	30
% 1,2-dichlorobenzene-d4	105	%	99	101	2.0	99	100	1.0	70 - 130	30
% Bromofluorobenzene	92	%	100	99	1.0	96	99	3.1	70 - 130	30
% Dibromofluoromethane	106	%	100	99	1.0	99	99	0.0	70 - 130	30
% Toluene-d8	100	%	102	102	0.0	102	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 440867 (ug/kg), QC Sample No: CA99219 (CA91711 (50X))

Volatiles - Soil

1,1,2,2-Tetrachloroethane	ND	3.0	107	102	4.8	109	109	0.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	106	102	3.8	116	112	3.5	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	102	98	4.0	107	105	1.9	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	104	99	4.9	110	107	2.8	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	100	97	3.0	109	105	3.7	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	102	99	3.0	108	104	3.8	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	99	97	2.0	106	103	2.9	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	102	99	3.0	109	106	2.8	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	101	98	3.0	107	104	2.8	70 - 130	30
2-Chlorotoluene	ND	5.0	101	99	2.0	109	104	4.7	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
2-Isopropyltoluene	ND	5.0	104	103	1.0	112	109	2.7	70 - 130	30
4-Chlorotoluene	ND	5.0	100	99	1.0	108	104	3.8	70 - 130	30
Bromobenzene	ND	5.0	101	99	2.0	106	105	0.9	70 - 130	30
Hexachlorobutadiene	ND	5.0	100	96	4.1	98	102	4.0	70 - 130	30
Isopropylbenzene	ND	1.0	99	98	1.0	105	103	1.9	70 - 130	30
Naphthalene	ND	5.0	111	105	5.6	125	120	4.1	70 - 130	30
n-Butylbenzene	ND	1.0	105	102	2.9	113	110	2.7	70 - 130	30
n-Propylbenzene	ND	1.0	99	98	1.0	108	103	4.7	70 - 130	30
p-Isopropyltoluene	ND	1.0	102	100	2.0	111	106	4.6	70 - 130	30
sec-Butylbenzene	ND	1.0	102	100	2.0	110	109	0.9	70 - 130	30
tert-Butylbenzene	ND	1.0	97	96	1.0	105	102	2.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	101	97	4.0	95	95	0.0	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	101	100	1.0	105	100	4.9	70 - 130	30
% Bromofluorobenzene	96	%	100	100	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 440852 (ug/kg), QC Sample No: CA99223 (CA91711, CA91712)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	93	95	2.1	94	98	4.2	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	92	92	0.0	94	100	6.2	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	101	2.0	100	106	5.8	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	97	1.0	93	96	3.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	97	98	1.0	101	102	1.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	108	103	4.7	113	116	2.6	70 - 130	30
1,1-Dichloropropene	ND	5.0	96	98	2.1	98	104	5.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	98	99	1.0	85	91	6.8	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	96	99	3.1	97	102	5.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	94	96	2.1	81	90	10.5	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	96	98	2.1	95	101	6.1	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	91	93	2.2	91	90	1.1	70 - 130	30
1,2-Dibromoethane	ND	5.0	94	96	2.1	94	98	4.2	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	96	99	3.1	92	100	8.3	70 - 130	30
1,2-Dichloroethane	ND	5.0	101	104	2.9	99	104	4.9	70 - 130	30
1,2-Dichloropropane	ND	5.0	98	99	1.0	98	98	0.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	93	96	3.2	96	102	6.1	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	96	98	2.1	92	99	7.3	70 - 130	30
1,3-Dichloropropane	ND	5.0	96	97	1.0	97	97	0.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	95	97	2.1	89	98	9.6	70 - 130	30
2,2-Dichloropropane	ND	5.0	91	91	0.0	89	88	1.1	70 - 130	30
2-Chlorotoluene	ND	5.0	95	96	1.0	97	103	6.0	70 - 130	30
2-Hexanone	ND	25	92	91	1.1	87	89	2.3	70 - 130	30
2-Isopropyltoluene	ND	5.0	100	103	3.0	103	108	4.7	70 - 130	30
4-Chlorotoluene	ND	5.0	95	98	3.1	94	100	6.2	70 - 130	30
4-Methyl-2-pentanone	ND	25	100	99	1.0	95	96	1.0	70 - 130	30
Acetone	ND	10	78	83	6.2	71	75	5.5	70 - 130	30
Acrylonitrile	ND	5.0	90	90	0.0	90	86	4.5	70 - 130	30
Benzene	ND	1.0	96	98	2.1	98	103	5.0	70 - 130	30
Bromobenzene	ND	5.0	96	99	3.1	95	101	6.1	70 - 130	30
Bromochloromethane	ND	5.0	93	93	0.0	93	98	5.2	70 - 130	30
Bromodichloromethane	ND	5.0	95	97	2.1	93	95	2.1	70 - 130	30
Bromoform	ND	5.0	87	87	0.0	83	85	2.4	70 - 130	30
Bromomethane	ND	5.0	110	113	2.7	118	123	4.1	70 - 130	30

QA/QC Data

SDG I.D.: GCA91708

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	5.0	107	104	2.8	108	114	5.4	70 - 130	30
Carbon tetrachloride	ND	5.0	87	87	0.0	88	92	4.4	70 - 130	30
Chlorobenzene	ND	5.0	96	97	1.0	98	101	3.0	70 - 130	30
Chloroethane	ND	5.0	110	105	4.7	113	119	5.2	70 - 130	30
Chloroform	ND	5.0	90	91	1.1	93	96	3.2	70 - 130	30
Chloromethane	ND	5.0	95	92	3.2	92	94	2.2	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	96	95	1.0	95	97	2.1	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	96	96	0.0	90	94	4.3	70 - 130	30
Dibromochloromethane	ND	3.0	95	97	2.1	90	95	5.4	70 - 130	30
Dibromomethane	ND	5.0	97	99	2.0	94	98	4.2	70 - 130	30
Dichlorodifluoromethane	ND	5.0	101	99	2.0	98	101	3.0	70 - 130	30
Ethylbenzene	ND	1.0	94	96	2.1	98	102	4.0	70 - 130	30
Hexachlorobutadiene	ND	5.0	95	97	2.1	94	101	7.2	70 - 130	30
Isopropylbenzene	ND	1.0	93	97	4.2	99	105	5.9	70 - 130	30
m&p-Xylene	ND	2.0	93	93	0.0	94	99	5.2	70 - 130	30
Methyl ethyl ketone	ND	5.0	92	95	3.2	90	91	1.1	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	86	1.2	85	84	1.2	70 - 130	30
Methylene chloride	ND	5.0	104	102	1.9	106	108	1.9	70 - 130	30
Naphthalene	ND	5.0	103	104	1.0	91	95	4.3	70 - 130	30
n-Butylbenzene	ND	1.0	99	102	3.0	98	105	6.9	70 - 130	30
n-Propylbenzene	ND	1.0	94	96	2.1	98	103	5.0	70 - 130	30
o-Xylene	ND	2.0	94	95	1.1	96	100	4.1	70 - 130	30
p-Isopropyltoluene	ND	1.0	97	99	2.0	98	105	6.9	70 - 130	30
sec-Butylbenzene	ND	1.0	97	100	3.0	101	107	5.8	70 - 130	30
Styrene	ND	5.0	95	95	0.0	94	97	3.1	70 - 130	30
tert-Butylbenzene	ND	1.0	92	96	4.3	97	102	5.0	70 - 130	30
Tetrachloroethene	ND	5.0	96	99	3.1	97	105	7.9	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	94	95	1.1	93	94	1.1	70 - 130	30
Toluene	ND	1.0	97	98	1.0	98	101	3.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	106	103	2.9	108	111	2.7	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	89	92	3.3	85	88	3.5	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	94	96	2.1	82	87	5.9	70 - 130	30
Trichloroethene	ND	5.0	98	101	3.0	101	105	3.9	70 - 130	30
Trichlorofluoromethane	ND	5.0	100	100	0.0	107	111	3.7	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	109	108	0.9	115	120	4.3	70 - 130	30
Vinyl chloride	ND	5.0	106	105	0.9	110	113	2.7	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	103	3.0	101	101	0.0	70 - 130	30
% Bromofluorobenzene	97	%	101	101	0.0	101	100	1.0	70 - 130	30
% Dibromofluoromethane	98	%	97	99	2.0	97	96	1.0	70 - 130	30
% Toluene-d8	97	%	103	105	1.9	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%.

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.: GCA91708

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
November 27, 2018

Tuesday, November 27, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	11000	1000	7800	7800	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	10000	1000	8400	8400	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3800	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	10000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3800	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	4700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2700	1000	1000	1000	ug/Kg
CA91708	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2200	1000	1000	1000	ug/Kg
CA91708	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	220	200	200	200	ug/Kg
CA91708	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1400	260	500	500	mg/Kg
CA91708	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	22.4	0.67	10	10	mg/Kg
CA91708	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	22.4	0.67	10	10	mg/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	22000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	28000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	23000	1300	7800	7800	ug/Kg
CA91709	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	26000	1200	8400	8400	ug/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	22000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	19000	1300	8400	8400	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	23000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	28000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	37000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4400	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	22000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	26000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	19000	1300	1000	1000	ug/Kg
CA91709	$8100SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	110000	13000	40000	40000	ug/Kg
CA91709	$8100SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	45000	2700	40000	40000	ug/Kg
CA91709	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	28000	1300	1000	1000	ug/Kg

Tuesday, November 27, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA91709	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	16000	1200	1000	1000	ug/Kg
CA91709	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	23000	1300	1000	1000	ug/Kg
CA91709	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	350	200	200	200	ug/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	4800	290	2500	2500	mg/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4800	290	500	500	mg/Kg
CA91709	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4800	290	2500	2500	mg/Kg
CA91709	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	15.4	0.79	10	10	mg/Kg
CA91709	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	15.4	0.79	10	10	mg/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2900	260	1000	1000	ug/Kg
CA91711	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1400	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1200	260	1000	1000	ug/Kg
CA91711	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2000	260	1000	1000	ug/Kg
CA91711	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	14.8	0.79	10	10	mg/Kg
CA91711	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.8	0.79	10	10	mg/Kg
CA91714	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1100	260	1000	1000	ug/Kg
CA91714	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	28.5	0.72	10	10	mg/Kg
CA91714	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	28.5	0.72	10	10	mg/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	4100	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	300	200	200	ug/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1200	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	4400	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1300	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	4100	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2700	520	1000	1000	ug/Kg
CA91721	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1400	520	1000	1000	ug/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	2600	280	2500	2500	mg/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	2600	280	500	500	mg/Kg
CA91721	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	2600	280	2500	2500	mg/Kg

Tuesday, November 27, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA91708 - TIGHE-DAS

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

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

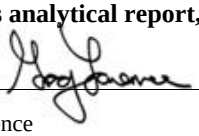
Laboratory Sample ID(s): CA91708, CA91709, CA91711, CA91712, CA91714, CA91715, CA91717, CA91719-CA91721 ***Sampling Date(s):*** 7/16/2018, 7/17/2018

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: ETPH Narration, 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:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Tuesday, November 27, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 27, 2018

SDG I.D.: GCA91708

SDG Comments

8270 Semi-volatile Organics: CA91708, CA91709, CA91711, CA91712
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

Cyanide Narration

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

Instrument:

LACHAT 07/19/18-1 Eric Geyer, Chemist 07/19/18

CA91708

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 07/23/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/23/18

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/30/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/30/18

CA91711, CA91712

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 439437 (CA91086)

CA91708

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RCP Certification Report

November 27, 2018

SDG I.D.: GCA91708

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

Batch 439830 (CA93881)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440745 (CA99405)

CA91711, CA91712

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

ETPH Narration

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

QC Batch 439334 (Samples: CA91708): -----

The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.

Instrument:

AU-FID1 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA91709

The initial calibration (ETPH717I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: CA91709
Preceding CC 720A003 - None.
Succeeding CC 720A016 - Pentacosane 39%H (30%)

AU-FID21 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA91720

The initial calibration (ETPH620I) 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 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA91721

The initial calibration (ETPH620I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA91715, CA91717, CA91719

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/27/18-1 Jeff Bucko, Chemist 07/27/18

CA91712

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 27, 2018

SDG I.D.: GCA91708

ETPH Narration

AU-FID22 07/30/18-1 Jeff Bucko, Chemist 07/30/18

CA91711

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

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

CA91708

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:
Samples: CA91708
Preceding CC 719A003 - None.
Succeeding CC 719A015 - Pentacosane 47%H (30%)

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

CA91714

The initial calibration (ETPH605I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 439334 (CA91307)

CA91708

All LCS recoveries were within 60 - 120 with the following exceptions: None.
The surrogate recovery in the blank is below acceptance criteria, all other samples and QC are within criteria. No bias is suspected.
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 439591 (CA93630)

CA91709

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 439592 (CA93879)

CA91714

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 439728 (CA94567)

CA91715, CA91717, CA91719, CA91720, CA91721

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.

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RCP Certification Report

November 27, 2018

SDG I.D.: GCA91708

ETPH Narration

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 440643 (CA99145)

CA91711, CA91712

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? No.

QC Batch 439699 (Samples: CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721): -----

The Sample/Duplicate RPD exceeds the method criteria, therefore there may be variability in the reported result.

Instrument:

MERLIN 07/19/18 08:13 Rick Schweitzer, Chemist 07/19/18

CA91708

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

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/23/18 08:10 Rick Schweitzer, Chemist 07/23/18

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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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SDG I.D.: GCA91708

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.

MERLIN 07/30/18 08:25 Rick Schweitzer, Chemist 07/30/18

CA91711, CA91712

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 439509 (CA91307)

CA91708

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

Batch 439515 (CA92953)

CA91708

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

Batch 439704 (CA93877)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440835 (CA99405)

CA91711, CA91712

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

Batch 440839 (CA99730)

CA91711, CA91712

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%.

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Mercury Narration

QC (Site Specific):

Batch 439699 (CA91709)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

ICP Metals Narration

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

QC Batch 439411 (Samples: CA91708): -----

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- Copper(CA91708))

Instrument:

ARCOS 07/18/18 09:30 Emily Kolominskaya, Tina Hall, Chemist 07/18/18

CA91708

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 07/19/18 10:14 Emily Kolominskaya, Tina Hall, Chemist 07/19/18

CA91708

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 07/20/18 11:09 Emily Kolominskaya, Phyllis Shiller, Chemist 07/20/18

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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 07/28/18 07:01 Emily Kolominskaya, Chemist 07/28/18

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SDG I.D.: GCA91708

ICP Metals Narration

CA91711, CA91712

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 07/30/18 09:50 Emily Kolominskaya, Chemist 07/30/18

CA91711, CA91712

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 439411 (CA91307)

CA91708

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

Batch 439518 (CA92748)

CA91708

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

Batch 439754 (CA91132)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440844 (CA99450)

CA91711, CA91712

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

QC (Site Specific):

Batch 439804 (CA91717)

CA91709, CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440729 (CA91712)

CA91711, CA91712

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

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ICP Metals Narration

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 07/23/18-1 Adam Werner, Chemist 07/23/18

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

AU-ECD24 07/30/18-1 Adam Werner, Chemist 07/30/18

CA91709, CA91711

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

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

CA91708

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC605BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 439654 (CA94225)

CA91708

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

Batch 439789 (CA95173)

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

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

Batch 440644 (CA99736)

CA91709, CA91711

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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SDG I.D.: GCA91708

SVOA Narration

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

QC Batch 439785 (Samples: CA91714, CA91715, CA91717, CA91719, CA91720, CA91721): -----

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

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

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

The QC recoveries for one analyte are below the method criteria. A low bias is likely. (Benzoic Acid)

The QC recoveries for one analyte are below the lower range but within the method criteria. A low bias is possible.(Pyridine)

QC Batch 440641 (Samples: CA91711, CA91712): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes and the surrogates. Therefore there may be variability in the reported result. (Anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, Indeno(1,2,3-cd)pyrene, % 2-Fluorobiphenyl, % Nitrobenzene-d5, % Terphenyl-d14)

Instrument:

CHEM06 07/27/18-1

CA91711, CA91712

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_0627):
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 (CHEM06/0727_04-BN_0627):
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 07/19/18-2 Keith Aloisa, Chemist 07/19/18

CA91708

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

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SVOA Narration

Initial Calibration Verification (CHEM19/SPLIT_0717):
95% 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 (CHEM19/0719_02-SPLIT_0717):
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 07/21/18-1

CA91714, CA91715, CA91717, CA91719, CA91720

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_0717):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 43% (20%), Benzidine 24% (20%), Pentachlorophenol 22% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0721_02-SPLIT_0717):
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: Bis(2-chloroethyl)ether 0.683 (0.7), Hexachlorobenzene 0.094 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM27 07/23/18-1 Harry Mullin, Chemist 07/23/18

CA91709

Initial Calibration Verification (CHEM27/SPLIT_0722):
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 (CHEM27/0723_02-SPLIT_0722):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

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SVOA Narration

CHEM28 07/23/18-1 Keith Aloisa, Chemist 07/23/18

CA91721

Initial Calibration Verification (CHEM28/SPLIT_0717):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 37% (20%), 4,6-Dinitro-2-methylphenol 36% (20%), Benzidine 24% (20%), Benzoic acid 26% (20%), Hexachlorocyclopentadiene 24% (20%), Pentachlorophenol 31% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM28/0723_06-SPLIT_0717):
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: 4-Nitrophenol 32%H (30%), Benzoic acid 73%H (30%)
The following compounds did not meet maximum % deviations: Benzoic acid 73%H (40%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM29 07/21/18-1

CA91709

Initial Calibration Verification (CHEM29/BN_0614):
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 (CHEM29/0721_08-BN_0614):
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 439329 (CA91994)

CA91708

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%)

Batch 439785 (CA95183)

CA91714, CA91715, CA91717, CA91719, CA91720, CA91721

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(10%), 4,6-Dinitro-2-methylphenol(28%), Benzoic Acid(<10%), Pyridine(27%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(15%), Benzoic Acid(<10%), Pyridine(29%)

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SVOA Narration

All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(60.5%)
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 439787 (CA94567)

CA91709

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%)

Batch 440641 (CA99009)

CA91711, CA91712

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: % 2-Fluorobiphenyl(37.9%), % Terphenyl-d14(40.7%)
This batch consists of a Blank, LCS, LCSD and MS.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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

QC Batch 439719 (Samples: CA91714, CA91715, CA91719, CA91720, CA91721): -----

The LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (2-Hexanone, Methyl ethyl ketone, Methylene chloride)

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

QC Batch 439968 (Samples: CA91708, CA91709, CA91714, CA91719, CA91720, CA91721): -----

The LCS and Batch MS/MSD recoveries are below the lower range but within the method criteria. A slight low bias is possible. (Acetone)

Instrument:

CHEM03 07/19/18-1 Jane Li, Chemist 07/19/18

CA91708

Initial Calibration Verification (CHEM03/VT-L0714):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: trans-1,4-dichloro-2-butene 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 (CHEM03/0719L02-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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VOA Narration

100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

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

CA91714, CA91715, CA91719, CA91720, CA91721

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

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

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

CA91708, CA91709, CA91714, CA91719, CA91720, CA91721

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

Continuing Calibration Verification (CHEM03/0720L02-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM14 07/27/18-2 Jane Li, Chemist 07/27/18

CA91711, CA91712

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

Continuing Calibration Verification (CHEM14/0727_37-VT-0725):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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VOA Narration

100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM14 07/28/18-1 Jane Li, Chemist 07/28/18

CA91711

Initial Calibration Verification (CHEM14/VT-0725):
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 (CHEM14/0728_02-VT-0725):
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 07/21/18-1 Jane Li, Chemist 07/21/18

CA91709

Initial Calibration Verification (CHEM26/VT-0718):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 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 (CHEM26/0721_02-VT-0718):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 439719 (CA93486)

CA91714, CA91715, CA91719, CA91720, CA91721

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(61%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(66%), Acetone(54%), Methyl ethyl ketone(61%), Methylene chloride(68%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 439723 (CA90365)

CA91708

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, 2018

SDG I.D.: GCA91708

VOA Narration

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

Batch 439961 (CA94870)

CA91709

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%.

Batch 439968 (CA94060)

CA91708, CA91709, CA91714, CA91719, CA91720, CA91721

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

Batch 440852 (CA99223)

CA91711, CA91712

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%.

Batch 440867 (CA99219)

CA91711

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%.

Temperature Narration

The samples in this delivery group were received at 5.4°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] 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 5.4 °C Pg 1 of 2

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEwing@Tighebond.com

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

Project: Rexhame MGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 150755-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/17/19

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	PAHs	ETPH	RCSL metals	SPLP RCSA metals	Total Cyanide	Soil VOA Vials [X] methanol [X] H2O	GL Soil container ( ) 1oz	GL Soil container ( ) 1oz	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
	~~SB-33 (1-3 Ft)~~	S	~~7/16/19~~	~~15:00~~																
91708	SB-33 (5-7 Ft)		7/17/19	13:40	X	X	X	X	X	X	3	1								
91709	SB-34 (2-4 Ft)		7/16/19	11:10							3	1								
91710	SB-35 (2-4 Ft)			11:30							3	1								
91711	SB-36 (2-4 Ft)			13:40							3	1								
91712	SB-37 (2-4 Ft)			14:00							3	1								
91713	SB-38 (2-4 Ft)			14:25							3	1								
91714	SB-42 (2-4 Ft)			14:45							3	1								
91715	SB-41 (1-3 Ft)			15:35							3	1								
91716	SB-40 (0-2 Ft)		7/17/19	7:10							3	1								
91717	SB-47 (2-4 Ft)			7:35							3	1								
91718	SB-43 (1-3 Ft)			9:30							3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TRUCK	7/17/19	1307
			1503

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TIO185178A
Please hold samples pending add'l Hazwrk investigation

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
[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

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

CHAIN OF CUSTODY RECORD

Temp 4 °C Pg 1 of 2

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@tighebond.com

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

Project: Revere MGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 15-0758-443

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/17/18

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	Soil VOA Vials [x] methanol [x] 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
91719	SB-44 (1-3 ft)	S	7/17/18	9:45	x	x								
91720	SB-45 (0-2 ft)	S	7/17/18	11:00	x	x								
91721	SB-65 (1-3 ft)	S	7/17/18	11:50	x	x								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TTOWMM	7/17/18	1503

Comments, Special Requirements or Regulations:

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
[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
[ ] Other E-mail

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 22
Page 325 of 1282

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, July 18, 2018 10:12 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Sarah:

Analyze SB-33 (5-7) (91708) for the requested analysis. HOLD the remaining soil samples with unchecked analysis.

Thank you.
Lynn E. Willey, P.G., 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: Wednesday, July 18, 2018 10:04 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Cc: Benjamin P. Caswell <BCaswell@tighebond.com>
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

SO these I am leaving on hold. I did add criteria for when you do release.

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: Wednesday, July 18, 2018 9:54 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Sarah:

Good morning.

We submitted soil samples for a number of boring locations on the attached COCs. The majority of them are on hold at the moment. We had to pre-clear boreholes and will be completing additional samples this week. I need to see if there are deeper impacts before activating the samples that do not have analysis checked.

Also, we will need the GB PMC criteria.

Lynn E. Willey, P.G., 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: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT
CA91709	SB-34 2-4 FT
CA91710	SB-35 2-4 FT
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT
CA91714	SB-42 2-4 FT
CA91715	SB- 41 1-3 FT
CA91716	SB-46 0-2 FT
CA91717	SB-47 2-4 FT
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT
CA91720	SB-45 0-2 FT
CA91721	SB-65 1-3 FT

The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices 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.

Lynn E. Willey

From: clientservices@phoenixlabs.com
Sent: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT Add PCB
CA91709	SB-34 2-4 FT - Activate 7/19/18
CA91710	SB-35 2-4 FT Hold
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT Hold
CA91714	SB-42 2-4 FT - Activate 7/19/18
CA91715	SB-41 1-3 FT - Activate 7/19/18
CA91716	SB-46 0-2 FT Hold
CA91717	SB-47 2-4 FT - Activate 7/19/18
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT - Activate 7/19/18
CA91720	SB-45 0-2 FT - Activate 7/19/18
CA91721	SB-65 1-3 FT - Activate 7/19/18

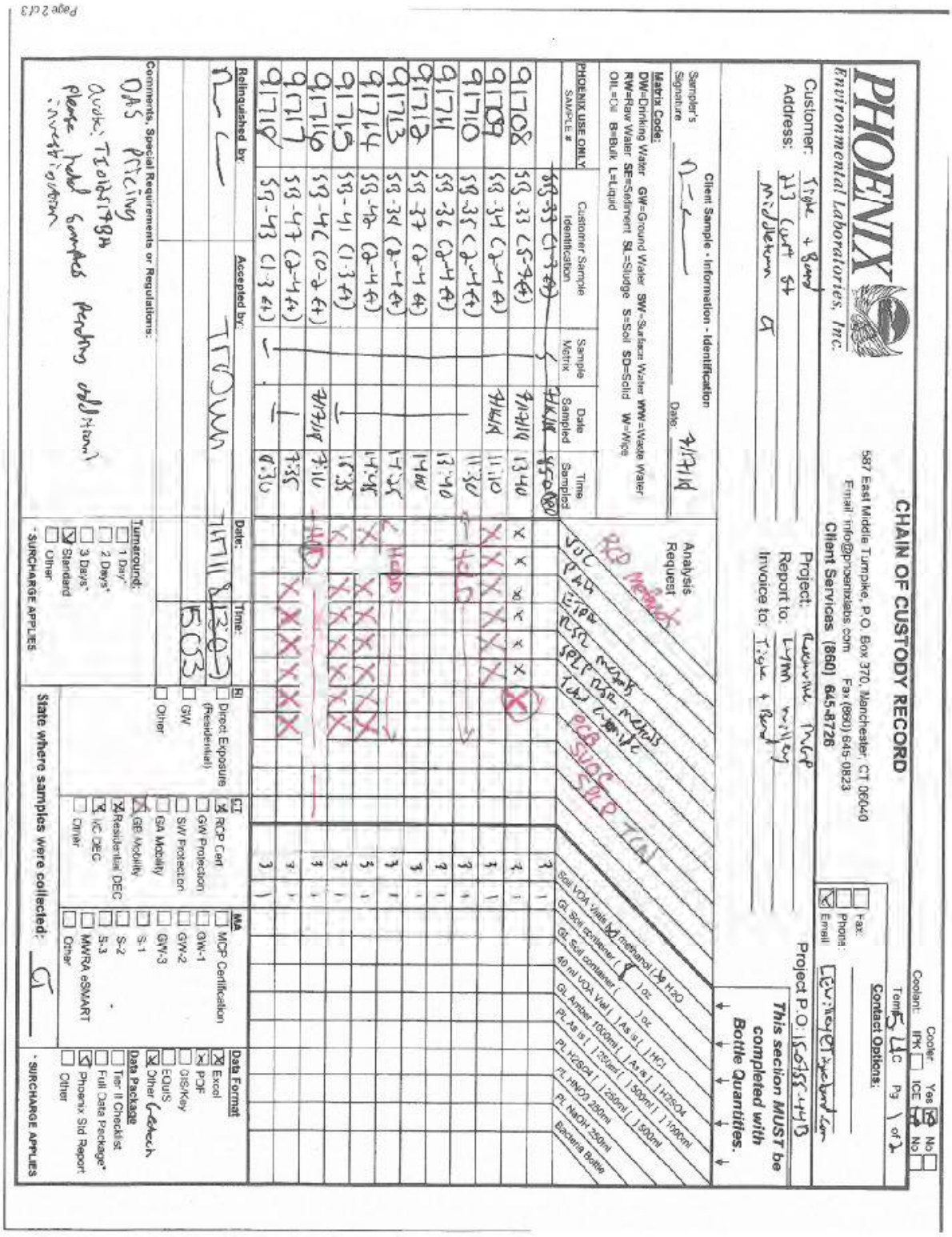


The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

1



PHOENIX

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

Environmental Laboratories, Inc.

Cooler: Yes / No — Coolant: IPK / ICE — Temp: 5.4C — Pg 1 of 2

Contact Options: Fax: Phone: Email:

Customer: Triple + Road
Address: 213 Court St Middletown CT

Project: Revenue Prog
Report to: Lynn Mullen
Invoice to: Triple + Road

Project P.O.: [illegible]

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/17/19

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Settlement 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: VOC PAH EPH RCP SPLP RCP Metals TAL Target Compounds ECB SVOC STLC TCLP	Soil VOA Vials (X methanol ( ) H2O	GL Soil container ( ) 8oz	GL Soil container ( ) 1oz	40 ml VOA Vial ( ) As is ( ) HCl	GL Amber 1000ml ( ) As is ( ) H2SO4	PL As is ( ) 250ml ( ) 500ml ( ) 1000ml	PL HCl/SO4 ( ) 250ml ( ) 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
91708	SG-33 (2.5-4ft)		9/17/19	13:40	X X X X X X X										
91709	SG-34 (2.5-4ft)			11:10	X X X X X X X										
91710	SG-35 (2.5-4ft)			11:30	X X X X X X X										
91711	SG-36 (2.5-4ft)			13:40	X X X X X X X										
91712	SG-37 (2.5-4ft)			14:00	X X X X X X X										
91713	SG-38 (2.5-4ft)			14:25	X X X X X X X										
91714	SG-42 (2.5-4ft)			14:45	X X X X X X X										
91715	SG-41 (1.5ft)			15:35	X X X X X X X										
91716	SG-40 (0.5-2ft)		9/18/19	7:10	X X X X X X X										
91717	SG-47 (2.5-4ft)			7:35	X X X X X X X										
91718	SG-43 (1.5ft)			8:30	X X X X X X X										

Relinquished by: [signature] Date: 9/17/19 Time: 15:30

Accepted by: [signature] Date: 9/18/19 Time: 15:03

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: T20191904
Please hold samples pending additional instruction

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

EI: ☐ 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

Page 2 of 3

PHOENIX

Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

567 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°C Pg 1 of 2

Contact Options:
Fax
Phone
Email

Customer: Tighe & Bond
Address: 53 Enfield St
Windsor, CT

Project: Rocky Hill MGP
Report to: Lynn Worthen
Invoice to: Tighe & Bond

Project P.O.: 0155-0557-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sample's Signature: [signature] Date: 4/14/26

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
91719	SB-44(1-3 ft)	S	4/13/26	9:45
91720	SB-45 (0-3 ft)			11:00
91721	SB-65 (1-3 ft)			11:50

Analysis Request

Soil VOA Vials [X] methanol [X] H2O
GL Soil container [ ] 1oz
GL Soil container [ ] 1oz
40 ml VOA Vial [ ] As III [ ] HCl
GL Amber 100ml [ ] As V [ ] H2SO4
PL As IV [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 250ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by: [signature] Date: 4/15/26 Time: 15:03

Accepted by: [signature]

Comments, Special Requirements or Regulations:

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 Classification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☒ Other [illegible]

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

State where samples were collected: CT

*SURCHARGE APPLIES

Page 3 of 3

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, July 19, 2018 4:41 PM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement
Attachments: 2018-7-17-Tighe-Bond Rockville MGP COC -Additional analyses.pdf

Sarah:

Here is the first batch of the samples to active for Rockville that were collected on Monday 7/16 Tuesday 7/17. I have highlighted them in red. Also see the activation for PCB for SB-33 (5-7) (91708).

Let us know if there are any questions.

Thanks.

Lynn E. Willey, P.G., 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: Wednesday, July 18, 2018 10:04 AM
To: Lynn E. Willey <LEWilley@tighebond.com>
Cc: Benjamin P. Caswell <BCaswell@tighebond.com>
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

SO these I am leaving on hold. I did add criteria for when you do release.

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: Wednesday, July 18, 2018 9:54 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Sarah:

Good morning.

We submitted soil samples for a number of boring locations on the attached COCs. The majority of them are on hold at the moment. We had to pre-clear boreholes and will be completing additional samples this week. I need to see if there are deeper impacts before activating the samples that do not have analysis checked.

Also, we will need the GB PMC criteria.

Lynn E. Willey, P.G., 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: Tuesday, July 17, 2018 8:17 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GCA91708, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Price Quote#: TI012517BA

Purchase Order#:15-0755-44B

GCA91708 Criteria:
SOIL(14): CT I/C (I/C Dec), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCA91708 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA91708	SB-33 5-7 FT
CA91709	SB-34 2-4 FT
CA91710	SB-35 2-4 FT
CA91711	SB-36 2-4 FT
CA91712	SB-37 2-4 FT
CA91713	SB-38 2-4 FT
CA91714	SB-42 2-4 FT
CA91715	SB- 41 1-3 FT
CA91716	SB-46 0-2 FT
CA91717	SB-47 2-4 FT
CA91718	SB-43 1-3 FT
CA91719	SB-44 1-3 FT
CA91720	SB-45 0-2 FT
CA91721	SB-65 1-3 FT

The samples in this delivery group were received at 5.4°C. (Note acceptance criteria for relevant matrices 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: Friday, July 27, 2018 10:16 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: Additional Analyses
Attachments: Rockville MGP -Additional Analysis 7-27-18.pdf

Sarah:

Please see the additional analyses for the attached COCs. They are still in hold time as long as they get analyzed before Tuesday.

Thanks.

Lynn E. Willey, P.G., 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.

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
IPK ICE
Temp 4.1c Pg 1 of 2
Contact Options:
Fax
Phone
Email

Customer: Tighe & Bond
Address: 53 Court St Middletown CT

Project: Eversource Energy
Report to: Emily Eisley
Invoice to: Tighe & Bond

Project P.O.: SC6552-4493

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature
Date: 4/17/24

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	Analysis Request
91708	SB-33 (2-4)	SOIL	4/17/24	13:40	
91709	SB-34 (2-4)	SOIL	4/17/24	11:10	
91710	SB-35 (2-4)			11:30	
91711	SB-36 (2-4)			13:40	
91712	SB-37 (2-4)			14:00	
91713	SB-38 (2-4)			14:25	
91714	SB-42 (2-4)			14:45	
91715	SB-41 (1-3)			15:35	
91716	SB-40 (0-2)	SOIL	4/17/24	7:15	
91717	SB-47 (2-4)			7:35	
91718	SB-43 (1-3)			8:30	

Analysis Request: VOC, PAH, TCLP Metals, SPLP Metals, TCLP Cyanide, PCB Soils, SVOC TCL, RCP Metals, Added

Bottle Quantities:

Bottle	1	2	3	4	5	6	7	8	9	10
Solid VOA Vials & methanol ( ) H2O	1	1	1	1	1	1	1	1	1	1
8oz. Soil container ( ) 1oz	1	1	1	1	1	1	1	1	1	1
8oz. Soil container ( ) 1oz	1	1	1	1	1	1	1	1	1	1
40 ml VOA Vial [ ] As is [ ] HCl	3	3	3	3	3	3	3	3	3	3
8oz. Amber 1040ml [ ] As is [ ] H2SO4	1	1	1	1	1	1	1	1	1	1
PL As is [ ] 250ml [ ] As is [ ] H2SO4	1	1	1	1	1	1	1	1	1	1
PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	1	1	1	1	1	1	1	1	1	1
PL HNO3 250ml	1	1	1	1	1	1	1	1	1	1
PL NaOH 250ml	1	1	1	1	1	1	1	1	1	1
Bacteria Bottle	1	1	1	1	1	1	1	1	1	1

Relinquished by: [signature] Date: 4/17/24 Time: 1530
Accepted by: [signature] Date: 4/17/24 Time: 1530

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: T2018179A
Please hold samples pending additional investigation

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

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

RI
☐ Direct Exposure (Residential)
☐ GW
☐ 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
☐ EQuIS Key
☐ EQuIS
☒ Other Geotech

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Pricenix Std Report
☐ Other

*SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Monday, August 13, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA94064 - CA94065, CA94067, CA94069

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 13, 2018

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:		07/19/18	7:45
Location Code:	TIGHE-DAS	Received by:	LB	07/19/18	16:17
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-443				

Laboratory Data

SDG ID: GCA94064
Phoenix ID: CA94064

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 3.7	3.7	mg/Kg	1	07/20/18	EK	SW6010C
Arsenic	18.5	0.75	mg/Kg	1	07/20/18	EK	SW6010C
Barium	59.3	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Beryllium	0.37	0.30	mg/Kg	1	07/20/18	EK	SW6010C
Cadmium	0.72	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Chromium	13.7	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Copper	24.0	0.37	mg/kg	1	07/20/18	PS	SW6010C
Mercury	0.21	0.13	mg/Kg	1	07/23/18	RS	SW7471B
Nickel	11.4	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Lead	45.5	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	07/20/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/20/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	0.009	0.004	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.017	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/20/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)

Phoenix I.D.: CA94064

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	22.7	0.37	mg/Kg	1	07/20/18	EK	SW6010C
Zinc	125	3.7	mg/Kg	10	07/20/18	EK	SW6010C
Percent Solid	88		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.38	0.52	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/19/18	BB/V	SW3545A
Soil Extraction for SVOA	Completed				07/19/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/23/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/19/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1600	280	mg/Kg	5	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1221	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1232	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1242	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1248	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1254	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1260	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1262	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1268	ND	370	ug/Kg	10	07/21/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	10	07/21/18	AW	30 - 150 %
% TCMX	83		%	10	07/21/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)

Phoenix I.D.: CA94064

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	07/23/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	07/23/18	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	07/23/18	JLI	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Benzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromodichloromethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromoform	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloroform	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	07/23/18	JLI	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Ethylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Isopropylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
m&p-Xylene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	07/23/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.9	ug/Kg	1	07/23/18	JLI	SW8260C
Methylene chloride	ND	8.9	ug/Kg	1	07/23/18	JLI	SW8260C
Naphthalene	490	360	ug/Kg	50	07/21/18	JLI	SW8260C
n-Butylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
n-Propylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
o-Xylene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
sec-Butylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Styrene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Tetrachloroethene	170	140	ug/Kg	50	07/21/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.9	ug/Kg	1	07/23/18	JLI	SW8260C
Toluene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Total Xylenes	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)

Phoenix I.D.: CA94064

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.9	ug/Kg	1	07/23/18	JLI	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	07/23/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	07/23/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	07/23/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	07/23/18	JLI	70 - 130 %
% Toluene-d8	85		%	1	07/23/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2-Methylnaphthalene	6800	260	ug/Kg	1	07/24/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	07/24/18	KCA	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Acenaphthene	880	260	ug/Kg	1	07/24/18	KCA	SW8270D
Acenaphthylene	7000	260	ug/Kg	1	07/24/18	KCA	SW8270D
Acetophenone	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Aniline	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Anthracene	6200	260	ug/Kg	1	07/24/18	KCA	SW8270D
Benz(a)anthracene	16000	1000	ug/Kg	10	07/25/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
Benzo(a)pyrene	13000	1200	ug/Kg	10	07/25/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)

Phoenix I.D.: CA94064

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	9000	1000	ug/Kg	10	07/25/18	KCA	SW8270D
Benzo(ghi)perylene	7100	260	ug/Kg	1	07/24/18	KCA	SW8270D
Benzo(k)fluoranthene	12000	1000	ug/Kg	10	07/25/18	KCA	SW8270D
Benzoic acid	ND	740	ug/Kg	1	07/24/18	KCA	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Carbazole	520	370	ug/Kg	1	07/24/18	KCA	SW8270D
Chrysene	17000	1000	ug/Kg	10	07/25/18	KCA	SW8270D
Dibenz(a,h)anthracene	1900	260	ug/Kg	1	07/24/18	KCA	SW8270D
Dibenzofuran	1300	260	ug/Kg	1	07/24/18	KCA	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Fluoranthene	22000	2600	ug/Kg	10	07/25/18	KCA	SW8270D
Fluorene	5900	260	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	6900	260	ug/Kg	1	07/24/18	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Naphthalene	6700	260	ug/Kg	1	07/24/18	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
Phenanthrene	25000	2600	ug/Kg	10	07/25/18	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/24/18	KCA	SW8270D
Pyrene	28000	2600	ug/Kg	10	07/25/18	KCA	SW8270D
Pyridine	ND	370	ug/Kg	1	07/24/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	77		%	1	07/24/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	59		%	1	07/24/18	KCA	30 - 130 %
% 2-Fluorophenol	48		%	1	07/24/18	KCA	30 - 130 %
% Nitrobenzene-d5	56		%	1	07/24/18	KCA	30 - 130 %
% Phenol-d5	54		%	1	07/24/18	KCA	30 - 130 %
% Terphenyl-d14	56		%	1	07/24/18	KCA	30 - 130 %
Field Extraction	Completed				07/19/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-46 (5-7 FT)
Phoenix I.D.: CA94064

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:
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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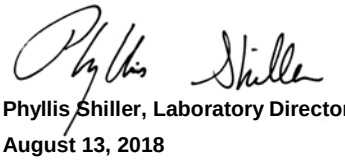

Phyllis Shiller, Laboratory Director
August 13, 2018
Reviewed and Released by: Sarah Bell, Project Manager

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

Analysis Report

August 13, 2018

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:		07/19/18	10:00
Location Code:	TIGHE-DAS	Received by:	LB	07/19/18	16:17
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-443				

Laboratory Data

SDG ID: GCA94064
Phoenix ID: CA94065

Project ID: ROCKVILLE MGP
Client ID: SB-47 (11-13 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		07/19/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				07/19/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	6400	260	mg/Kg	5	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/23/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	07/21/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/21/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,1-Dichloroethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,1-Dichloroethene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,1-Dichloropropene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	65	ug/Kg	50	07/21/18	JLI	SW8260C
1,2-Dibromoethane	ND	33	ug/Kg	50	07/21/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	50	07/21/18	JLI	SW8260C
1,2-Dichloropropane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-47 (11-13 FT)

Phoenix I.D.: CA94065

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,3-Dichloropropane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
2,2-Dichloropropane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
2-Chlorotoluene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
2-Hexanone	ND	1600	ug/Kg	50	07/21/18	JLI	SW8260C
2-Isopropyltoluene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
4-Chlorotoluene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	1600	ug/Kg	50	07/21/18	JLI	SW8260C
Acetone	ND	16000	ug/Kg	50	07/21/18	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	07/21/18	JLI	SW8260C
Benzene	ND	200	ug/Kg	50	07/21/18	JLI	SW8260C
Bromobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Bromochloromethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Bromodichloromethane	ND	210	ug/Kg	50	07/21/18	JLI	SW8260C
Bromoform	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Bromomethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Carbon Disulfide	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Carbon tetrachloride	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Chlorobenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Chloroethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Chloroform	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Chloromethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	100	ug/Kg	50	07/21/18	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	07/21/18	JLI	SW8260C
Dibromomethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Dichlorodifluoromethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Ethylbenzene	190	130	ug/Kg	50	07/21/18	JLI	SW8260C
Hexachlorobutadiene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Isopropylbenzene	190	130	ug/Kg	50	07/21/18	JLI	SW8260C
m&p-Xylene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	2000	ug/Kg	50	07/21/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	650	ug/Kg	50	07/21/18	JLI	SW8260C
Methylene chloride	ND	650	ug/Kg	50	07/21/18	JLI	SW8260C
Naphthalene	840	330	ug/Kg	50	07/21/18	JLI	SW8260C
n-Butylbenzene	220	200	ug/Kg	50	07/21/18	JLI	SW8260C
n-Propylbenzene	170	130	ug/Kg	50	07/21/18	JLI	SW8260C
o-Xylene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
p-Isopropyltoluene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
sec-Butylbenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Styrene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
tert-Butylbenzene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Tetrachloroethene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	650	ug/Kg	50	07/21/18	JLI	SW8260C
Toluene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Total Xylenes	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	100	ug/Kg	50	07/21/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-47 (11-13 FT)

Phoenix I.D.: CA94065

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	650	ug/Kg	50	07/21/18	JLI	SW8260C
Trichloroethene	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Trichlorofluoromethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	330	ug/Kg	50	07/21/18	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	50	07/21/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	50	07/21/18	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	07/21/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	50	07/21/18	JLI	70 - 130 %
% Toluene-d8	102		%	50	07/21/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Acenaphthene	14000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Acenaphthylene	5400	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Anthracene	18000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Benz(a)anthracene	14000	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Benzo(a)pyrene	12000	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Benzo(b)fluoranthene	7300	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Benzo(ghi)perylene	6300	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Benzo(k)fluoranthene	9600	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Chrysene	15000	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Dibenz(a,h)anthracene	1400	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Fluoranthene	24000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Fluorene	16000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	6400	1000	ug/Kg	5	07/20/18	KCA	SW8270D
Naphthalene	2400	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Phenanthrene	24000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
Pyrene	32000	1300	ug/Kg	5	07/20/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	5	07/20/18	KCA	30 - 130 %
% Nitrobenzene-d5	74		%	5	07/20/18	KCA	30 - 130 %
% Terphenyl-d14	70		%	5	07/20/18	KCA	30 - 130 %
Field Extraction	Completed				07/19/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-47 (11-13 FT)

Phoenix I.D.: CA94065

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:

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 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
August 13, 2018
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

August 13, 2018

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:		07/19/18	12:30
Location Code:	TIGHE-DAS	Received by:	LB	07/19/18	16:17
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-443				

Laboratory Data

SDG ID: GCA94064
Phoenix ID: CA94067

Project ID: ROCKVILLE MGP
Client ID: SB-35 (5-7 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Arsenic	91.6	0.76	mg/Kg	1	07/20/18	EK	SW6010C
Barium	79.7	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	07/20/18	EK	SW6010C
Cadmium	0.85	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Chromium	9.39	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Copper	24.3	0.38	mg/kg	1	07/20/18	PS	SW6010C
Mercury	0.33	0.16	mg/Kg	1	07/23/18	RS	SW7471B
Nickel	6.22	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Lead	55.2	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/20/18	EK	SW6010C
Selenium	< 15	15	mg/Kg	1	07/20/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	0.022	0.004	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	0.016	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	0.018	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/20/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-35 (5-7 FT)

Phoenix I.D.: CA94067

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	36.0	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Zinc	58.2	0.38	mg/Kg	1	07/20/18	EK	SW6010C
Percent Solid	85		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	3.23	0.59	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/19/18	BB/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/19/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/23/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/19/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	8600	580	mg/Kg	10	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/21/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	100		%	10	07/21/18	AW	30 - 150 %
% TCMX	74		%	10	07/21/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.6	ug/Kg	1	07/23/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloroethene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,1-Dichloropropene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,2-Dichloropropane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-35 (5-7 FT)

Phoenix I.D.: CA94067

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,3-Dichloropropane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
2,2-Dichloropropane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
2-Chlorotoluene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
2-Hexanone	ND	47	ug/Kg	1	07/23/18	JLI	SW8260C
2-Isopropyltoluene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
4-Chlorotoluene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	47	ug/Kg	1	07/23/18	JLI	SW8260C
Acetone	ND	470	ug/Kg	1	07/23/18	JLI	SW8260C
Acrylonitrile	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Benzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromochloromethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromodichloromethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromoform	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Bromomethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Carbon Disulfide	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Carbon tetrachloride	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chlorobenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloroform	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Chloromethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Dibromochloromethane	ND	5.6	ug/Kg	1	07/23/18	JLI	SW8260C
Dibromomethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Dichlorodifluoromethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Ethylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Hexachlorobutadiene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Isopropylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
m&p-Xylene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	56	ug/Kg	1	07/23/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	19	ug/Kg	1	07/23/18	JLI	SW8260C
Methylene chloride	ND	19	ug/Kg	1	07/23/18	JLI	SW8260C
Naphthalene	350	320	ug/Kg	50	07/21/18	JLI	SW8260C
n-Butylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
n-Propylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
o-Xylene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
p-Isopropyltoluene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
sec-Butylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Styrene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
tert-Butylbenzene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Tetrachloroethene	320	320	ug/Kg	50	07/21/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	19	ug/Kg	1	07/23/18	JLI	SW8260C
Toluene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Total Xylenes	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-35 (5-7 FT)

Phoenix I.D.: CA94067

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	19	ug/Kg	1	07/23/18	JLI	SW8260C
Trichloroethene	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Trichlorofluoromethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
Vinyl chloride	ND	9.4	ug/Kg	1	07/23/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	07/23/18	JLI	70 - 130 %
% Bromofluorobenzene	80		%	1	07/23/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/23/18	JLI	70 - 130 %
% Toluene-d8	82		%	1	07/23/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	5600	ug/Kg	50	07/23/18	KCA	SW8270D
Acenaphthene	ND	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Acenaphthylene	56000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Anthracene	22000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Benz(a)anthracene	150000	3800	ug/Kg	50	07/23/18	KCA	SW8270D
Benzo(a)pyrene	150000	6200	ug/Kg	50	07/23/18	KCA	SW8270D
Benzo(b)fluoranthene	120000	3800	ug/Kg	50	07/23/18	KCA	SW8270D
Benzo(ghi)perylene	140000	3800	ug/Kg	50	07/23/18	KCA	SW8270D
Benzo(k)fluoranthene	130000	3800	ug/Kg	50	07/23/18	KCA	SW8270D
Chrysene	160000	3800	ug/Kg	50	07/23/18	KCA	SW8270D
Dibenz(a,h)anthracene	21000	6200	ug/Kg	50	07/23/18	KCA	SW8270D
Fluoranthene	170000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Fluorene	ND	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	120000	6400	ug/Kg	50	07/23/18	KCA	SW8270D
Naphthalene	ND	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Phenanthrene	38000	13000	ug/Kg	50	07/23/18	KCA	SW8270D
Pyrene	450000	40000	ug/Kg	250	07/23/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	56		%	50	07/23/18	KCA	30 - 130 %
% Nitrobenzene-d5	59		%	50	07/23/18	KCA	30 - 130 %
% Terphenyl-d14	69		%	50	07/23/18	KCA	30 - 130 %
Field Extraction	Completed				07/19/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-35 (5-7 FT)
Phoenix I.D.: CA94067

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:

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
August 13, 2018
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

August 13, 2018

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:		07/19/18	14:30
Location Code:	TIGHE-DAS	Received by:	LB	07/19/18	16:17
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-443				

Laboratory Data

SDG ID: GCA94064
Phoenix ID: CA94069

Project ID: ROCKVILLE MGP
Client ID: SB-38 (5-7 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Arsenic	3.86	0.66	mg/Kg	1	07/20/18	EK	SW6010C
Barium	63.6	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Beryllium	0.45	0.27	mg/Kg	1	07/20/18	EK	SW6010C
Cadmium	0.52	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Chromium	17.7	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Copper	28.5	0.33	mg/kg	1	07/20/18	PS	SW6010C
Mercury	0.18	0.13	mg/Kg	1	07/23/18	RS	SW7471B
Nickel	11.8	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Lead	49.1	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	07/20/18	EK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/20/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Arsenic	0.007	0.004	mg/L	1	07/20/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/20/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/20/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/20/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/20/18	EK	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	07/20/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-38 (5-7 FT)

Phoenix I.D.: CA94069

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/20/18	I/I	SW3010A
Vanadium	38.5	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Zinc	57.0	0.33	mg/Kg	1	07/20/18	EK	SW6010C
Percent Solid	94		%		07/19/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	3.55	0.53	mg/Kg	1	07/23/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/23/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/20/18	JA/V	SW3545A
Mercury Digestion	Completed				07/23/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/19/18	I	SW1312
Total Metals Digest	Completed				07/19/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	82		%	1	07/21/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
2-Chlorotoluene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	07/21/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
4-Chlorotoluene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	07/21/18	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	07/21/18	JLI	SW8260C
Acrylonitrile	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Benzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromochloromethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-38 (5-7 FT)

Phoenix I.D.: CA94069

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromoform	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromomethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon Disulfide	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon tetrachloride	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chlorobenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroform	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloromethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromochloromethane	ND	3.3	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromomethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Ethylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Isopropylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
m&p-Xylene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	33	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/21/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/21/18	JLI	SW8260C
Naphthalene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
n-Butylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
n-Propylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
o-Xylene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
sec-Butylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Styrene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
tert-Butylbenzene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrachloroethene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/21/18	JLI	SW8260C
Toluene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Total Xylenes	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	07/21/18	JLI	SW8260C
Trichloroethene	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
Vinyl chloride	ND	5.4	ug/Kg	1	07/21/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	07/21/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	07/21/18	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	07/21/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/21/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Acenaphthene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Acenaphthylene	300	240	ug/Kg	1	07/24/18	HM	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-38 (5-7 FT)

Phoenix I.D.: CA94069

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Benz(a)anthracene	790	240	ug/Kg	1	07/24/18	HM	SW8270D
Benzo(a)pyrene	550	240	ug/Kg	1	07/24/18	HM	SW8270D
Benzo(b)fluoranthene	850	240	ug/Kg	1	07/24/18	HM	SW8270D
Benzo(ghi)perylene	830	240	ug/Kg	1	07/24/18	HM	SW8270D
Benzo(k)fluoranthene	800	240	ug/Kg	1	07/24/18	HM	SW8270D
Chrysene	1100	240	ug/Kg	1	07/24/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Fluoranthene	810	240	ug/Kg	1	07/24/18	HM	SW8270D
Fluorene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	790	240	ug/Kg	1	07/24/18	HM	SW8270D
Naphthalene	ND	240	ug/Kg	1	07/24/18	HM	SW8270D
Phenanthrene	310	240	ug/Kg	1	07/24/18	HM	SW8270D
Pyrene	1400	240	ug/Kg	1	07/24/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	07/24/18	HM	30 - 130 %
% Nitrobenzene-d5	71		%	1	07/24/18	HM	30 - 130 %
% Terphenyl-d14	66		%	1	07/24/18	HM	30 - 130 %
Field Extraction	Completed				07/19/18		SW5035A

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

Comments:

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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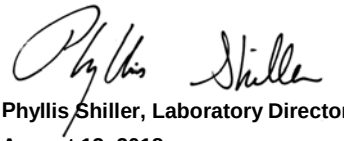

Phyllis Shiller, Laboratory Director
August 13, 2018
Reviewed and Released by: Sarah Bell, Project Manager

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

QA/QC Report

August 13, 2018

QA/QC Data

SDG I.D.: GCA94064

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 439754 (mg/L), QC Sample No: CA91132 (CA94064, CA94067, CA94069)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	0.006	<0.005	NC	103			102			75 - 125	20	
Arsenic	BRL	0.004	0.009	<0.004	NC	101			99.4			75 - 125	20	
Barium	BRL	0.010	0.008	0.009	NC	98.6			98.0			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.7			99.7			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	103			103			75 - 125	20	
Chromium	BRL	0.010	0.002	0.001	NC	99.7			99.0			75 - 125	20	
Copper	BRL	0.010	0.004	0.004	NC	99.5			99.2			75 - 125	20	
Lead	BRL	0.010	0.003	<0.010	NC	100			100			75 - 125	20	
Nickel	BRL	0.010	0.006	0.003	NC	101			99.7			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	100			98.6			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	100			99.9			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	97.2			96.3			75 - 125	20	
Vanadium	BRL	0.010	0.032	0.032	NC	97.1			96.7			75 - 125	20	
Zinc	BRL	0.010	0.005	0.004	NC	102			101			75 - 125	20	
QA/QC Batch 439700 (mg/kg), QC Sample No: CA93881 (CA94064, CA94067, CA94069)														
Mercury - Soil	BRL	0.02	0.71	0.76	6.80	110	83.2	27.7	NC			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 439657 (mg/kg), QC Sample No: CA94190 (CA94064, CA94067, CA94069)														
ICP Metals - Soil														
Antimony	BRL	3.3	3.9	4.1	NC	96.3			90.7			75 - 125	30	
Arsenic	BRL	0.67	4.24	6.8	46.4	105			93.6			75 - 125	30	r
Barium	BRL	0.33	85.1	78.0	8.70	95.8			90.0			75 - 125	30	
Beryllium	BRL	0.27	0.47	0.51	NC	94.6			91.8			75 - 125	30	
Cadmium	BRL	0.33	0.40	0.43	NC	91.9			91.1			75 - 125	30	
Chromium	BRL	0.33	16.1	19.2	17.6	103			92.2			75 - 125	30	
Copper	BRL	0.32	38.5	35.4	8.40	112			107			75 - 125	30	
Lead	BRL	0.33	915	909	0.70	98.9			58.3			75 - 125	30	m
Nickel	BRL	0.51	21.7	33.8	43.6	94.1			84.5			75 - 125	30	r
Selenium	BRL	1.3	<1.3	<1.3	NC	120			92.4			75 - 125	30	
Silver	BRL	0.33	<0.32	<0.32	NC	98.0			92.2			75 - 125	30	
Thallium	BRL	3.0	<1.3	<2.9	NC	95.7			90.9			75 - 125	30	
Vanadium	BRL	0.33	22.1	22.2	0.50	108			90.7			75 - 125	30	
Zinc	BRL	1.3	47.7	43.5	9.20	97.5			92.2			75 - 125	30	
QA/QC Batch 439705 (mg/L), QC Sample No: CA94371 (CA94064, CA94067, CA94069)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	92.8			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%.														

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

August 13, 2018

QA/QC Data

SDG I.D.: GCA94064

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 439830 (mg/Kg), QC Sample No: CA93881 50X (CA94064, CA94067, CA94069)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	0.65	<0.57	NC	99.0			102			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

August 13, 2018

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 439589 (ug/kg), QC Sample No: CA93433 (CA94065, CA94067)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	230	72	69	4.3	74	64	14.5	30 - 130	30	
Acenaphthene	ND	230	71	70	1.4	74	63	16.1	30 - 130	30	
Acenaphthylene	ND	230	66	66	0.0	44	40	9.5	30 - 130	30	
Anthracene	ND	230	74	73	1.4	67	55	19.7	30 - 130	30	
Benz(a)anthracene	ND	230	73	72	1.4	NC	NC	NC	30 - 130	30	
Benzo(a)pyrene	ND	230	70	70	0.0	NC	NC	NC	30 - 130	30	
Benzo(b)fluoranthene	ND	230	78	77	1.3	NC	NC	NC	30 - 130	30	
Benzo(ghi)perylene	ND	230	68	69	1.5	NC	NC	NC	30 - 130	30	
Benzo(k)fluoranthene	ND	230	68	67	1.5	NC	NC	NC	30 - 130	30	
Chrysene	ND	230	72	72	0.0	NC	NC	NC	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	71	71	0.0	64	60	6.5	30 - 130	30	
Fluoranthene	ND	230	73	72	1.4	NC	NC	NC	30 - 130	30	
Fluorene	ND	230	71	70	1.4	72	64	11.8	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	69	71	2.9	NC	NC	NC	30 - 130	30	
Naphthalene	ND	230	78	74	5.3	81	71	13.2	30 - 130	30	
Phenanthrene	ND	230	74	72	2.7	61	69	12.3	30 - 130	30	
Pyrene	ND	230	74	73	1.4	NC	NC	NC	30 - 130	30	
% 2-Fluorobiphenyl	63	%	70	69	1.4	71	60	16.8	30 - 130	30	
% Nitrobenzene-d5	58	%	70	70	0.0	79	67	16.4	30 - 130	30	
% Terphenyl-d14	61	%	76	73	4.0	66	59	11.2	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 439590 (ug/Kg), QC Sample No: CA93883 2X (CA94064, CA94067)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	89	91	2.2	80	71	11.9	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	95	81	15.9	71	65	8.8	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	92	%	109	75	37.0	66	61	7.9	30 - 150	30	r
% TCMX (Surrogate Rec)	87	%	97	94	3.1	83	76	8.8	30 - 150	30	
QA/QC Batch 439640 (ug/kg), QC Sample No: CA94051 (CA94064)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	56	68	19.4	62	62	0.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	57	68	17.6	60	61	1.7	30 - 130	30	

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichlorobenzene	ND	180	51	59	14.5	54	55	1.8	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	53	64	18.8	59	58	1.7	30 - 130	30	
1,3-Dichlorobenzene	ND	230	47	56	17.5	49	48	2.1	30 - 130	30	
1,4-Dichlorobenzene	ND	230	49	56	13.3	50	49	2.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	60	75	22.2	66	64	3.1	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	61	73	17.9	64	63	1.6	30 - 130	30	
2,4-Dichlorophenol	ND	130	60	73	19.5	65	65	0.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	58	72	21.5	64	62	3.2	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	55	41	29.2	30 - 130	30	I
2,4-Dinitrotoluene	ND	130	60	73	19.5	64	64	0.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	60	71	16.8	64	62	3.2	30 - 130	30	
2-Chloronaphthalene	ND	230	56	67	17.9	64	62	3.2	30 - 130	30	
2-Chlorophenol	ND	230	57	66	14.6	62	62	0.0	30 - 130	30	
2-Methylnaphthalene	ND	230	57	68	17.6	61	61	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	59	69	15.6	68	67	1.5	30 - 130	30	
2-Nitroaniline	ND	330	80	100	22.2	88	85	3.5	30 - 130	30	
2-Nitrophenol	ND	230	64	75	15.8	69	69	0.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	59	72	19.8	65	64	1.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	59	68	14.2	83	80	3.7	30 - 130	30	
3-Nitroaniline	ND	330	71	85	17.9	77	74	4.0	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	19	25	27.3	62	51	19.5	30 - 130	30	I
4-Bromophenyl phenyl ether	ND	230	59	73	21.2	67	66	1.5	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	65	75	14.3	67	68	1.5	30 - 130	30	
4-Chloroaniline	ND	230	64	75	15.8	67	69	2.9	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	55	69	22.6	61	61	0.0	30 - 130	30	
4-Nitroaniline	ND	230	62	74	17.6	65	62	4.7	30 - 130	30	
4-Nitrophenol	ND	230	64	78	19.7	64	60	6.5	30 - 130	30	
Acenaphthene	ND	230	57	69	19.0	63	62	1.6	30 - 130	30	
Acenaphthylene	ND	130	53	64	18.8	57	58	1.7	30 - 130	30	
Acetophenone	ND	230	52	63	19.1	60	60	0.0	30 - 130	30	
Aniline	ND	330	47	53	12.0	52	48	8.0	30 - 130	30	
Anthracene	ND	230	57	70	20.5	63	62	1.6	30 - 130	30	
Benz(a)anthracene	ND	230	58	70	18.8	62	61	1.6	30 - 130	30	
Benzidine	ND	330	40	44	9.5	42	34	21.1	30 - 130	30	
Benzo(a)pyrene	ND	130	55	67	19.7	59	58	1.7	30 - 130	30	
Benzo(b)fluoranthene	ND	160	61	75	20.6	66	62	6.3	30 - 130	30	
Benzo(ghi)perylene	ND	230	58	72	21.5	63	65	3.1	30 - 130	30	
Benzo(k)fluoranthene	ND	230	57	70	20.5	60	63	4.9	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	13	<10	NC	30 - 130	30	I,m
Benzyl butyl phthalate	ND	230	61	72	16.5	63	64	1.6	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	58	68	15.9	61	61	0.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	48	56	15.4	53	54	1.9	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	45	53	16.3	52	51	1.9	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	63	76	18.7	66	65	1.5	30 - 130	30	
Carbazole	ND	230	60	73	19.5	65	63	3.1	30 - 130	30	
Chrysene	ND	230	56	68	19.4	60	61	1.7	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	62	79	24.1	70	68	2.9	30 - 130	30	
Dibenzofuran	ND	230	56	68	19.4	61	60	1.7	30 - 130	30	
Diethyl phthalate	ND	230	59	73	21.2	63	63	0.0	30 - 130	30	
Dimethylphthalate	ND	230	56	70	22.2	59	59	0.0	30 - 130	30	
Di-n-butylphthalate	ND	670	62	76	20.3	66	65	1.5	30 - 130	30	
Di-n-octylphthalate	ND	230	70	83	17.0	72	73	1.4	30 - 130	30	
Fluoranthene	ND	230	59	73	21.2	63	62	1.6	30 - 130	30	

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Fluorene	ND	230	56	68	19.4	61	61	0.0	30 - 130	30
Hexachlorobenzene	ND	130	61	74	19.3	65	64	1.6	30 - 130	30
Hexachlorobutadiene	ND	230	58	69	17.3	59	58	1.7	30 - 130	30
Hexachlorocyclopentadiene	ND	230	51	62	19.5	36	33	8.7	30 - 130	30
Hexachloroethane	ND	130	53	61	14.0	51	51	0.0	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	61	77	23.2	67	67	0.0	30 - 130	30
Isophorone	ND	130	54	65	18.5	58	58	0.0	30 - 130	30
Naphthalene	ND	230	55	65	16.7	60	61	1.7	30 - 130	30
Nitrobenzene	ND	130	57	68	17.6	66	65	1.5	30 - 130	30
N-Nitrosodimethylamine	ND	230	38	45	16.9	44	43	2.3	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	61	72	16.5	69	69	0.0	30 - 130	30
N-Nitrosodiphenylamine	ND	130	56	67	17.9	61	60	1.7	30 - 130	30
Pentachloronitrobenzene	ND	230	59	71	18.5	63	62	1.6	30 - 130	30
Pentachlorophenol	ND	230	47	59	22.6	63	55	13.6	30 - 130	30
Phenanthrene	ND	130	56	68	19.4	62	61	1.6	30 - 130	30
Phenol	ND	230	55	67	19.7	63	61	3.2	30 - 130	30
Pyrene	ND	230	61	75	20.6	64	63	1.6	30 - 130	30
Pyridine	ND	230	29	35	18.8	35	36	2.8	30 - 130	30
% 2,4,6-Tribromophenol	70	%	65	82	23.1	72	72	0.0	30 - 130	30
% 2-Fluorobiphenyl	69	%	55	65	16.7	59	62	5.0	30 - 130	30
% 2-Fluorophenol	61	%	53	61	14.0	60	57	5.1	30 - 130	30
% Nitrobenzene-d5	68	%	58	67	14.4	65	66	1.5	30 - 130	30
% Phenol-d5	65	%	58	69	17.3	62	61	1.6	30 - 130	30
% Terphenyl-d14	72	%	61	75	20.6	65	64	1.6	30 - 130	30

Comment:

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

QA/QC Batch 439728 (mg/Kg), QC Sample No: CA94567 (CA94064, CA94065, CA94067, CA94069)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	67	60	11.0	71	64	10.4	60 - 120	30
% n-Pentacosane	70	%	63	64	1.6	70	66	5.9	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 439979 (ug/kg), QC Sample No: CA94628 (CA94064 (50X) , CA94065 (50X) , CA94067 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	101	105	3.9	109	108	0.9	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	94	97	3.1	99	100	1.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	94	99	5.2	98	102	4.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	91	96	5.3	97	99	2.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	82	86	4.8	87	88	1.1	70 - 130	30
1,1-Dichloroethene	ND	5.0	95	96	1.0	91	93	2.2	70 - 130	30
1,1-Dichloropropene	ND	5.0	95	98	3.1	101	99	2.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	93	96	3.2	77	71	8.1	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	87	90	3.4	90	93	3.3	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	94	95	1.1	78	74	5.3	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	96	1.0	96	94	2.1	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	104	105	1.0	101	109	7.6	70 - 130	30
1,2-Dibromoethane	ND	5.0	95	99	4.1	99	103	4.0	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	92	96	4.3	92	89	3.3	70 - 130	30
1,2-Dichloroethane	ND	5.0	89	93	4.4	95	97	2.1	70 - 130	30
1,2-Dichloropropane	ND	5.0	90	94	4.3	95	97	2.1	70 - 130	30

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3,5-Trimethylbenzene	ND	1.0	95	98	3.1	99	94	5.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	95	97	2.1	95	92	3.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	90	94	4.3	96	99	3.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	94	2.2	92	88	4.4	70 - 130	30	
2,2-Dichloropropane	ND	5.0	93	97	4.2	98	98	0.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	95	97	2.1	99	96	3.1	70 - 130	30	
2-Hexanone	ND	25	75	76	1.3	74	79	6.5	70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	106	1.9	107	101	5.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	93	96	3.2	96	93	3.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	79	82	3.7	81	86	6.0	70 - 130	30	
Acetone	ND	10	68	68	0.0	43	40	7.2	70 - 130	30	l,m
Acrylonitrile	ND	5.0	83	87	4.7	80	87	8.4	70 - 130	30	
Benzene	ND	1.0	92	96	4.3	99	99	0.0	70 - 130	30	
Bromobenzene	ND	5.0	97	100	3.0	103	101	2.0	70 - 130	30	
Bromochloromethane	ND	5.0	94	98	4.2	99	101	2.0	70 - 130	30	
Bromodichloromethane	ND	5.0	98	102	4.0	102	104	1.9	70 - 130	30	
Bromoform	ND	5.0	108	114	5.4	108	113	4.5	70 - 130	30	
Bromomethane	ND	5.0	117	117	0.0	120	115	4.3	70 - 130	30	
Carbon Disulfide	ND	5.0	110	113	2.7	104	105	1.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	97	85	13.2	101	85	17.2	70 - 130	30	
Chlorobenzene	ND	5.0	94	97	3.1	99	97	2.0	70 - 130	30	
Chloroethane	ND	5.0	103	105	1.9	106	103	2.9	70 - 130	30	
Chloroform	ND	5.0	92	95	3.2	96	97	1.0	70 - 130	30	
Chloromethane	ND	5.0	90	94	4.3	90	93	3.3	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	94	1.1	99	101	2.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	94	98	4.2	99	100	1.0	70 - 130	30	
Dibromochloromethane	ND	3.0	108	113	4.5	114	117	2.6	70 - 130	30	
Dibromomethane	ND	5.0	92	96	4.3	96	100	4.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	112	113	0.9	117	114	2.6	70 - 130	30	
Ethylbenzene	ND	1.0	96	99	3.1	101	99	2.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	97	95	2.1	79	67	16.4	70 - 130	30	m
Isopropylbenzene	ND	1.0	95	98	3.1	102	98	4.0	70 - 130	30	
m&p-Xylene	ND	2.0	97	100	3.0	102	99	3.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	72	1.4	67	72	7.2	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	98	102	4.0	97	103	6.0	70 - 130	30	
Methylene chloride	ND	5.0	80	82	2.5	97	97	0.0	70 - 130	30	
Naphthalene	ND	5.0	94	98	4.2	83	81	2.4	70 - 130	30	
n-Butylbenzene	ND	1.0	95	93	2.1	91	83	9.2	70 - 130	30	
n-Propylbenzene	ND	1.0	94	96	2.1	100	94	6.2	70 - 130	30	
o-Xylene	ND	2.0	96	100	4.1	102	100	2.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	97	98	1.0	98	91	7.4	70 - 130	30	
sec-Butylbenzene	ND	1.0	100	101	1.0	100	93	7.3	70 - 130	30	
Styrene	ND	5.0	95	100	5.1	100	97	3.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	95	98	3.1	101	95	6.1	70 - 130	30	
Tetrachloroethene	ND	5.0	96	98	2.1	104	100	3.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	82	85	3.6	68	75	9.8	70 - 130	30	m
Toluene	ND	1.0	93	98	5.2	99	99	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	95	98	3.1	93	96	3.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	91	96	5.3	96	97	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	104	110	5.6	106	111	4.6	70 - 130	30	
Trichloroethene	ND	5.0	97	100	3.0	104	102	1.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	114	115	0.9	110	109	0.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	104	103	1.0	103	101	2.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Vinyl chloride	ND	5.0	105	108	2.8	107	106	0.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	100	%	99	98	1.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	95	%	101	101	0.0	101	102	1.0	70 - 130	30	
% Toluene-d8	102	%	99	99	0.0	98	98	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 439971 (ug/kg), QC Sample No: CA95025 (CA94069)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	100	100	0.0	94	97	3.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	94	94	0.0	90	91	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	92	91	1.1	89	88	1.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	89	89	0.0	82	84	2.4	70 - 130	30	
1,1-Dichloroethane	ND	5.0	82	82	0.0	80	81	1.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	86	87	1.2	90	91	1.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	94	95	1.1	91	92	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	86	89	3.4	90	95	5.4	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	84	85	1.2	82	80	2.5	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	85	88	3.5	89	95	6.5	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	91	93	2.2	93	95	2.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	95	98	3.1	88	90	2.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	93	93	0.0	89	90	1.1	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	88	90	2.2	91	92	1.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	90	88	2.2	84	85	1.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	89	88	1.1	86	87	1.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	93	95	2.1	93	95	2.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	90	92	2.2	93	95	2.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	89	89	0.0	87	89	2.3	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	87	89	2.3	90	92	2.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	93	95	2.1	85	85	0.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	92	94	2.2	92	94	2.2	70 - 130	30	
2-Hexanone	ND	25	72	73	1.4	65	68	4.5	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	102	104	1.9	103	105	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	90	91	1.1	91	93	2.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	76	76	0.0	70	73	4.2	70 - 130	30	
Acetone	ND	10	55	57	3.6	50	50	0.0	70 - 130	30	l,m
Acrylonitrile	ND	5.0	78	79	1.3	70	73	4.2	70 - 130	30	
Benzene	ND	1.0	91	91	0.0	87	88	1.1	70 - 130	30	
Bromobenzene	ND	5.0	94	96	2.1	93	96	3.2	70 - 130	30	
Bromochloromethane	ND	5.0	93	94	1.1	85	88	3.5	70 - 130	30	
Bromodichloromethane	ND	5.0	96	96	0.0	90	91	1.1	70 - 130	30	
Bromoform	ND	5.0	104	106	1.9	87	90	3.4	70 - 130	30	
Bromomethane	ND	5.0	108	104	3.8	106	102	3.8	70 - 130	30	
Carbon Disulfide	ND	5.0	101	103	2.0	80	84	4.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	82	83	1.2	77	78	1.3	70 - 130	30	
Chlorobenzene	ND	5.0	92	93	1.1	85	86	1.2	70 - 130	30	
Chloroethane	ND	5.0	96	97	1.0	106	103	2.9	70 - 130	30	
Chloroform	ND	5.0	91	92	1.1	88	88	0.0	70 - 130	30	
Chloromethane	ND	5.0	90	89	1.1	78	81	3.8	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	93	93	0.0	90	91	1.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	93	93	0.0	84	85	1.2	70 - 130	30	
Dibromochloromethane	ND	3.0	106	107	0.9	99	100	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dibromomethane	ND	5.0	90	90	0.0	83	85	2.4	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	119	120	0.8	116	115	0.9	70 - 130	30	
Ethylbenzene	ND	1.0	95	96	1.0	92	91	1.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	92	98	6.3	98	103	5.0	70 - 130	30	
Isopropylbenzene	ND	1.0	94	96	2.1	93	94	1.1	70 - 130	30	
m&p-Xylene	ND	2.0	94	96	2.1	89	89	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	67	65	3.0	67	65	3.0	70 - 130	30	l,m
Methyl t-butyl ether (MTBE)	ND	1.0	89	91	2.2	91	93	2.2	70 - 130	30	
Methylene chloride	ND	5.0	73	74	1.4	74	75	1.3	70 - 130	30	
Naphthalene	ND	5.0	89	91	2.2	86	90	4.5	70 - 130	30	
n-Butylbenzene	ND	1.0	90	94	4.3	94	97	3.1	70 - 130	30	
n-Propylbenzene	ND	1.0	93	95	2.1	93	94	1.1	70 - 130	30	
o-Xylene	ND	2.0	95	96	1.0	89	90	1.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	94	97	3.1	97	98	1.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	97	100	3.0	99	100	1.0	70 - 130	30	
Styrene	ND	5.0	93	95	2.1	80	80	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	94	96	2.1	94	95	1.1	70 - 130	30	
Tetrachloroethene	ND	5.0	95	97	2.1	88	90	2.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	78	77	1.3	72	75	4.1	70 - 130	30	
Toluene	ND	1.0	92	93	1.1	86	87	1.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	87	90	3.4	90	90	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	89	91	2.2	79	80	1.3	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	100	100	0.0	90	92	2.2	70 - 130	30	
Trichloroethene	ND	5.0	96	97	1.0	92	93	1.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	104	108	3.8	111	111	0.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	97	100	3.0	100	101	1.0	70 - 130	30	
Vinyl chloride	ND	5.0	103	102	1.0	98	99	1.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	98	98	0.0	96	97	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	99	100	1.0	92	93	1.1	70 - 130	30	
% Dibromofluoromethane	94	%	102	101	1.0	99	101	2.0	70 - 130	30	
% Toluene-d8	103	%	99	98	1.0	98	98	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 440000 (ug/kg), QC Sample No: CA95115 (CA94069)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	61	64	4.8	53	50	5.8	30 - 130	30	
Acenaphthene	ND	230	65	69	6.0	54	53	1.9	30 - 130	30	
Acenaphthylene	ND	230	62	66	6.3	52	50	3.9	30 - 130	30	
Anthracene	ND	230	67	71	5.8	55	53	3.7	30 - 130	30	
Benz(a)anthracene	ND	230	69	73	5.6	56	54	3.6	30 - 130	30	
Benzo(a)pyrene	ND	230	65	70	7.4	51	52	1.9	30 - 130	30	
Benzo(b)fluoranthene	ND	230	67	73	8.6	56	55	1.8	30 - 130	30	
Benzo(ghi)perylene	ND	230	62	60	3.3	48	48	0.0	30 - 130	30	
Benzo(k)fluoranthene	ND	230	69	74	7.0	53	53	0.0	30 - 130	30	
Chrysene	ND	230	67	72	7.2	55	52	5.6	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	64	70	9.0	51	51	0.0	30 - 130	30	
Fluoranthene	ND	230	68	72	5.7	55	53	3.7	30 - 130	30	
Fluorene	ND	230	65	70	7.4	55	54	1.8	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67	75	11.3	53	53	0.0	30 - 130	30	
Naphthalene	ND	230	62	65	4.7	54	52	3.8	30 - 130	30	
Phenanthrene	ND	230	65	68	4.5	54	52	3.8	30 - 130	30	
Pyrene	ND	230	67	73	8.6	56	56	0.0	30 - 130	30	

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% 2-Fluorobiphenyl	69	%	64	68	6.1	53	51	3.8	30 - 130	30
% Nitrobenzene-d5	67	%	67	70	4.4	58	53	9.0	30 - 130	30
% Terphenyl-d14	65	%	65	72	10.2	54	52	3.8	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 440153 (ug/kg), QC Sample No: CA95159 (CA94064, CA94067)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	97	90	7.5	94	95	1.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	92	81	12.7	88	88	0.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	109	102	6.6	103	99	4.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	93	85	9.0	91	90	1.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	94	85	10.1	89	90	1.1	70 - 130	30
1,1-Dichloroethene	ND	5.0	102	91	11.4	92	91	1.1	70 - 130	30
1,1-Dichloropropene	ND	5.0	95	86	9.9	92	92	0.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	113	101	11.2	105	111	5.6	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	93	93	0.0	93	91	2.2	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	111	96	14.5	101	107	5.8	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	104	96	8.0	101	101	0.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	118	107	9.8	107	101	5.8	70 - 130	30
1,2-Dibromoethane	ND	5.0	97	91	6.4	97	95	2.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	106	99	6.8	102	103	1.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	89	82	8.2	86	84	2.4	70 - 130	30
1,2-Dichloropropane	ND	5.0	94	87	7.7	92	91	1.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	103	95	8.1	99	100	1.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	104	95	9.0	100	100	0.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	93	87	6.7	92	91	1.1	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	106	96	9.9	102	102	0.0	70 - 130	30
2,2-Dichloropropane	ND	5.0	102	89	13.6	92	94	2.2	70 - 130	30
2-Chlorotoluene	ND	5.0	105	97	7.9	99	102	3.0	70 - 130	30
2-Hexanone	ND	25	86	80	7.2	83	79	4.9	70 - 130	30
2-Isopropyltoluene	ND	5.0	114	106	7.3	112	111	0.9	70 - 130	30
4-Chlorotoluene	ND	5.0	101	93	8.2	96	97	1.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	91	81	11.6	84	79	6.1	70 - 130	30
Acetone	ND	10	78	71	9.4	125	108	14.6	70 - 130	30
Acrylonitrile	ND	5.0	101	93	8.2	100	98	2.0	70 - 130	30
Benzene	ND	1.0	92	84	9.1	91	90	1.1	70 - 130	30
Bromobenzene	ND	5.0	108	100	7.7	104	103	1.0	70 - 130	30
Bromochloromethane	ND	5.0	88	81	8.3	86	89	3.4	70 - 130	30
Bromodichloromethane	ND	5.0	99	90	9.5	90	88	2.2	70 - 130	30
Bromoform	ND	5.0	100	93	7.3	90	86	4.5	70 - 130	30
Bromomethane	ND	5.0	106	91	15.2	97	86	12.0	70 - 130	30
Carbon Disulfide	ND	5.0	115	100	14.0	89	92	3.3	70 - 130	30
Carbon tetrachloride	ND	5.0	95	84	12.3	86	87	1.2	70 - 130	30
Chlorobenzene	ND	5.0	96	88	8.7	95	94	1.1	70 - 130	30
Chloroethane	ND	5.0	126	111	12.7	117	92	23.9	70 - 130	30
Chloroform	ND	5.0	88	81	8.3	81	81	0.0	70 - 130	30
Chloromethane	ND	5.0	103	89	14.6	97	99	2.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	94	84	11.2	95	96	1.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	91	10.4	93	92	1.1	70 - 130	30
Dibromochloromethane	ND	3.0	108	100	7.7	99	98	1.0	70 - 130	30
Dibromomethane	ND	5.0	97	88	9.7	92	92	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCA94064

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dichlorodifluoromethane	ND	5.0	118	101	15.5	105	107	1.9	70 - 130	30	
Ethylbenzene	ND	1.0	99	91	8.4	98	97	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	113	101	11.2	110	111	0.9	70 - 130	30	
Isopropylbenzene	ND	1.0	106	97	8.9	101	101	0.0	70 - 130	30	
m&p-Xylene	ND	2.0	94	87	7.7	95	94	1.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	85	73	15.2	80	75	6.5	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	103	93	10.2	101	101	0.0	70 - 130	30	
Methylene chloride	ND	5.0	87	78	10.9	86	85	1.2	70 - 130	30	
n-Butylbenzene	ND	1.0	114	103	10.1	109	109	0.0	70 - 130	30	
n-Propylbenzene	ND	1.0	107	98	8.8	103	102	1.0	70 - 130	30	
o-Xylene	ND	2.0	98	92	6.3	96	97	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	109	100	8.6	106	106	0.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	109	101	7.6	105	105	0.0	70 - 130	30	
Styrene	ND	5.0	95	88	7.7	94	95	1.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	105	97	7.9	102	101	1.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	91	84	8.0	89	85	4.6	70 - 130	30	
Toluene	ND	1.0	97	88	9.7	95	94	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	102	92	10.3	98	101	3.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	95	86	9.9	88	85	3.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	130	118	9.7	114	112	1.8	70 - 130	30	
Trichloroethene	ND	5.0	93	84	10.2	93	91	2.2	70 - 130	30	
Trichlorofluoromethane	ND	5.0	108	97	10.7	92	62	39.0	70 - 130	30	m,r
Trichlorotrifluoroethane	ND	5.0	108	96	11.8	99	99	0.0	70 - 130	30	
Vinyl chloride	ND	5.0	116	102	12.8	117	119	1.7	70 - 130	30	
% 1,2-dichlorobenzene-d4	92	%	99	102	3.0	102	101	1.0	70 - 130	30	
% Bromofluorobenzene	96	%	92	92	0.0	92	94	2.2	70 - 130	30	
% Dibromofluoromethane	101	%	98	97	1.0	99	105	5.9	70 - 130	30	
% Toluene-d8	87	%	101	99	2.0	100	100	0.0	70 - 130	30	

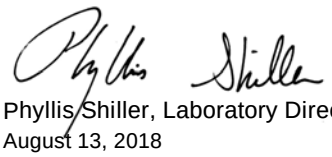
Comment:

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

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

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

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



Phyllis Shiller, Laboratory Director
August 13, 2018

Monday, August 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA94064 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA94064	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	16000	1000	7800	7800	ug/Kg
CA94064	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	13000	1200	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	9000	1000	7800	7800	ug/Kg
CA94064	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	6900	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Dibenzofuran	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	13000	1200	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	1000	8400	8400	ug/Kg
CA94064	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	16000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	6800	260	5600	5600	ug/Kg
CA94064	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	6900	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	17000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	7100	260	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	13000	1200	1000	1000	ug/Kg
CA94064	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	16000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	12000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	9000	1000	1000	1000	ug/Kg
CA94064	$8270-SMR	Dibenzofuran	CT / RSR GB (mg/kg) / Semivolatiles	1300	260	1000	1000	ug/Kg
CA94064	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1600	280	500	500	mg/Kg
CA94064	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	18.5	0.75	10	10	mg/Kg
CA94064	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	18.5	0.75	10	10	mg/Kg
CA94065	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1400	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	14000	1000	7800	7800	ug/Kg
CA94065	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	12000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1400	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	6400	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9600	1000	8400	8400	ug/Kg
CA94065	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7300	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1400	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	6300	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	15000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	6400	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	12000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	9600	1000	1000	1000	ug/Kg
CA94065	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	7300	1000	1000	1000	ug/Kg

Monday, August 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA94064 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA94065	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	33	7	7	ug/Kg
CA94065	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	65	40	40	ug/Kg
CA94065	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	6400	260	2500	2500	mg/Kg
CA94065	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	6400	260	500	500	mg/Kg
CA94065	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	6400	260	2500	2500	mg/Kg
CA94067	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	120000	6400	7800	7800	ug/Kg
CA94067	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	21000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC I/C (mg/kg) / APS Organics	140000	3800	78000	78000	ug/Kg
CA94067	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	130000	3800	78000	78000	ug/Kg
CA94067	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	120000	3800	7800	7800	ug/Kg
CA94067	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	150000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	150000	3800	7800	7800	ug/Kg
CA94067	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	21000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	120000	6400	1000	1000	ug/Kg
CA94067	$8100SMR	Chrysene	CT / RSR DEC RES (mg/kg) / APS Organics	160000	3800	84000	84000	ug/Kg
CA94067	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	140000	3800	8400	8400	ug/Kg
CA94067	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	130000	3800	8400	8400	ug/Kg
CA94067	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	120000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	150000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	150000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	160000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	120000	6400	1000	1000	ug/Kg
CA94067	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	21000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	140000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	170000	13000	56000	56000	ug/Kg
CA94067	$8100SMR	Pyrene	CT / RSR GB (mg/kg) / Semivolatiles	450000	40000	40000	40000	ug/Kg
CA94067	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	120000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	150000	3800	1000	1000	ug/Kg
CA94067	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	150000	6200	1000	1000	ug/Kg
CA94067	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	130000	3800	1000	1000	ug/Kg
CA94067	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	8600	580	2500	2500	mg/Kg
CA94067	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	8600	580	500	500	mg/Kg
CA94067	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	8600	580	2500	2500	mg/Kg
CA94067	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	91.6	0.76	10	10	mg/Kg
CA94067	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	91.6	0.76	10	10	mg/Kg
CA94069	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1100	240	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

Laboratory Sample ID(s): CA94064, CA94065, CA94067, CA94069 ***Sampling Date(s):*** 7/19/2018

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, PCB 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: Rashmi Makol **Position:** Project Manager

Printed Name: Rashmi Makol **Date:** Monday, August 13, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

SDG Comments

8270 Semi-volatile Organics: (C94065, CA94067, CA94069)
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

Sample(CA94065) 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.

Sample(CA94065) 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.

Cyanide Narration

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

Instrument:

LACHAT 07/23/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/23/18

CA94064, CA94067, CA94069

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 439830 (CA93881)

CA94064, CA94067, CA94069

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

ETPH Narration

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

Instrument:

AU-FID1 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA94067

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA94064, CA94065

The initial calibration (ETPH620I) 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.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

ETPH Narration

AU-FID22 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA94069

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 439728 (CA94567)

CA94064, CA94065, CA94067, CA94069

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 07/23/18 08:10 Rick Schweitzer, Chemist 07/23/18

CA94064, CA94067, CA94069

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 439700 (CA93881)

CA94064, CA94067, CA94069

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

Batch 439705 (CA94371)

CA94064, CA94067, CA94069

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%.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

August 13, 2018

SDG I.D.: GCA94064

ICP Metals Narration

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

QC Batch 439657 (Samples: CA94064, CA94067, CA94069): -----

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

Instrument:

ARCOS 07/20/18 11:09 Emily Kolominskaya, Phyllis Shiller, Chemist 07/20/18

CA94064, CA94067, CA94069

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 439657 (CA94190)

CA94064, CA94067, CA94069

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

Batch 439754 (CA91132)

CA94064, CA94067, CA94069

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

PCB Narration

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

QC Batch 439590 (Samples: CA94064, CA94067): -----

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

Instrument:

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

CA94064, CA94067

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC605BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 439590 (CA93883)

CA94064, CA94067

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

PCB Narration

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: % DCBP (Surrogate Rec)(37.0%)

SVOA Narration

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

QC Batch 439640 (Samples: CA94064): -----

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

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Pyridine)

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

Instrument:

CHEM06 07/20/18-1 Keith Aloisa, Chemist 07/20/18

CA94065

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_0627):
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 (CHEM06/0720_02A-BN_0627):
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.

CHEM06 07/23/18-1 Harry Mullin, Chemist 07/23/18

CA94069

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_0627):
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.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

SVOA Narration

Continuing Calibration Verification (CHEM06/0723_02-BN_0627):
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 07/20/18-1 Keith Aloisa, Chemist 07/20/18

CA94065

Initial Calibration Verification (CHEM27/bn_0718):
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 (CHEM27/0720_02-bn_0718):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM27 07/23/18-1 Harry Mullin, Chemist 07/23/18

CA94067

Initial Calibration Verification (CHEM27/SPLIT_0722):
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 (CHEM27/0723_02-SPLIT_0722):
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.

CHEM28 07/23/18-1 Keith Aloisa, Chemist 07/23/18

CA94064

Initial Calibration Verification (CHEM28/SPLIT_0717):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 37% (20%), 4,6-Dinitro-2-methylphenol 36% (20%), Benzidine 24% (20%), Benzoic acid 26% (20%), Hexachlorocyclopentadiene 24% (20%), Pentachlorophenol 31% (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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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

SVOA Narration

Continuing Calibration Verification (CHEM28/0723_06-SPLIT_0717):
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: 4-Nitrophenol 32%H (30%), Benzoic acid 73%H (30%)
The following compounds did not meet maximum % deviations: Benzoic acid 73%H (40%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM28 07/25/18-1 Matt Richard, Chemist 07/25/18

CA94064

Initial Calibration Verification (CHEM28/SPLIT_0717):
92% 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 (CHEM28/0725_02-SPLIT_0717):
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 439589 (CA93433)

CA94065, CA94067

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%)

Batch 439640 (CA94051)

CA94064

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(19%), Benzoic Acid(<10%), Pyridine(29%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(25%), 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%)

Batch 440000 (CA95115)

CA94069

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.

Environmental Laboratories, Inc.
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RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

SVOA 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%)

VOA Narration

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

QC Batch 439971 (Samples: CA94069): -----

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

QC Batch 439979 (Samples: CA94064, CA94065, CA94067): -----

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

QC Batch 440153 (Samples: CA94064, CA94067): -----

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

Instrument:

CHEM03 07/20/18-2 Jane Li, Chemist 07/20/18

CA94069

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

Continuing Calibration Verification (CHEM03/0720L37-VT-L0714):
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 37%L (30%), Methyl Ethyl Ketone 32%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM03 07/21/18-1 Jane Li, Chemist 07/21/18

CA94064, CA94065, CA94067

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

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RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

VOA Narration

Continuing Calibration Verification (CHEM03/0721L02-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM18 07/23/18-1 Jane Li, Chemist 07/23/18

CA94064, CA94067

Initial Calibration Verification (CHEM18/VT-M0714):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%), Chloroethane 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 (CHEM18/0723M04-VT-M0714):
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 439971 (CA95025)

CA94069

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(55%), Methyl ethyl ketone(67%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(57%), Methyl ethyl ketone(65%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 439979 (CA94628)

CA94064, CA94065, CA94067

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

Batch 440153 (CA95159)

CA94064, CA94067

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%.

Temperature Narration

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

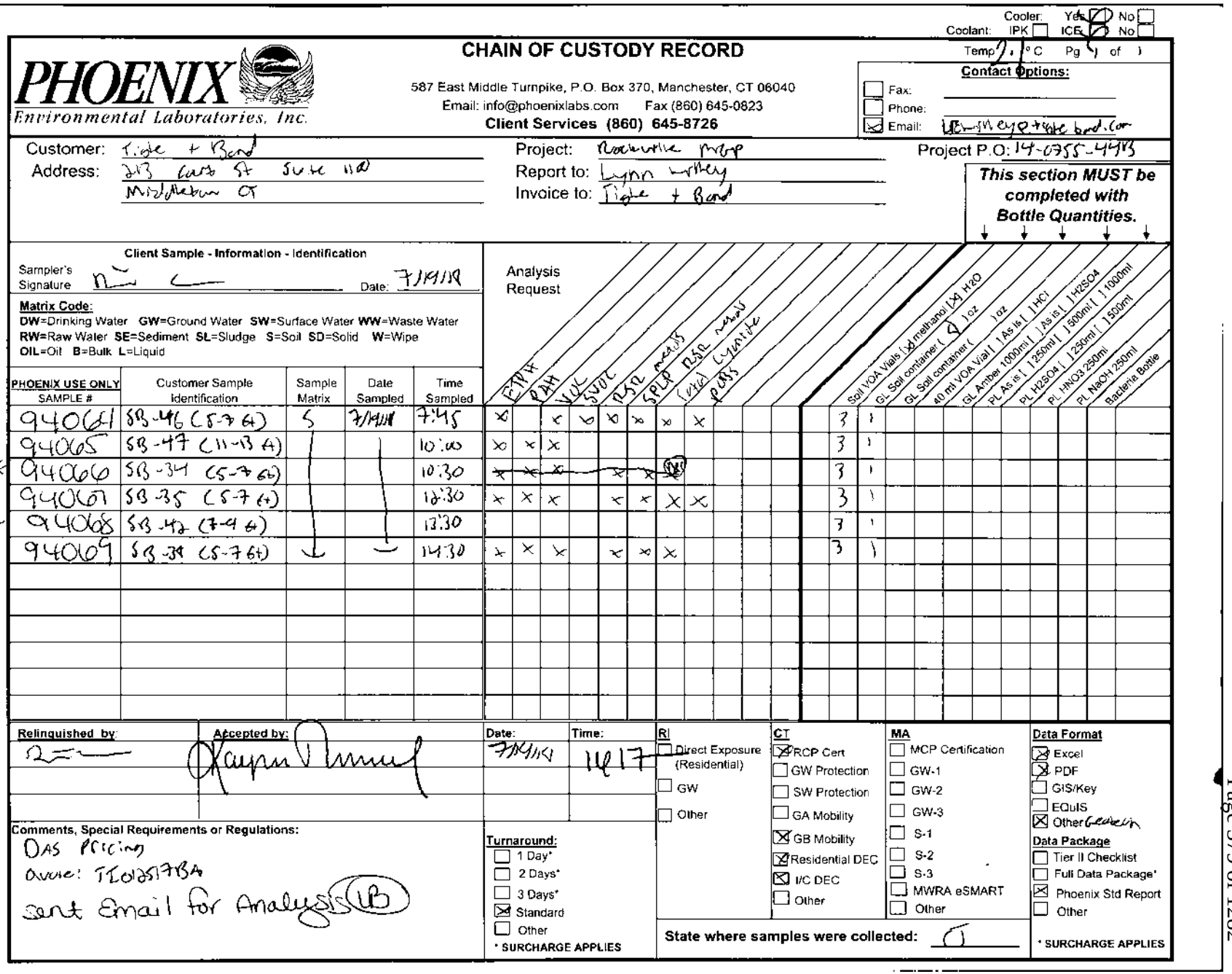
ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA94064

The samples were received at 2.1C with cooling initiated.
(Note acceptance criteria for relevant matrices 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 2.1 °C Pg 1 of 1

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: [illegible]@tighe-bond.com

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middletown CT

Project: Rocky Hill Mop
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 14-0755-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

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

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	ETPH	RPH	VOC	SVOC	RSR metals	SPLP RSR metals	[illegible] Cyanide	PCBs	Soil VOA Vials [x] methanol [x] 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 [ ] 1500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
940661	SB-46 (5-7 ft)	S	7/19/18	7:45	X		X	X	X	X	X	X	3	1								
940665	SB-47 (11-13 ft)			10:00	X	X	X						3	1								
* 940666	SB-34 (5-7 ft)			10:30	X	X	X		X	X	[illegible]		3	1								
940667	SB-35 (5-7 ft)			12:30	X	X	X		X	X	X	X	3	1								
* 940668	SB-42 (7-9 ft)			13:30									3	1								
940669	SB-39 (5-7 ft)	↓	—	14:30	X	X	X		X	X	X		3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/19/18	14:17

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TIG0517BA
Sent Email for Analysis LB

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

Lori Bailey

From: Lori Bailey
Sent: Thursday, July 19, 2018 05:01 PM
To: 'lewilley@tighebond.com'
Subject: Rockville MGP Samples

Hi Lynn,

On the samples received today for the above mentioned project, SB-42 (7-9 ft) has no analysis listed. Also, SB-34 (5-7 ft) the analysis is crossed out. I am placing these on hold for now. Please let me know how you would like for us to proceed.

Thanks,

Lori Bailey
Client Services Representative
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 1-860-645-1102
Fx: 1-860-645-0823
THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, forwarding, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately by e-mail or telephone, and delete the original message immediately. Thank you.

1

Lori Bailey
Client Services Representative
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040

Thanks,

On the samples received today for the above mentioned project, SB-42 (7-9 ft) has no analysis listed. Also, SB-34 (5-7 ft) the analysis is crossed out. I am placing these on hold for now. Please let me know how you would like for us to proceed.

Hi Lynn,

Subject: Rockville MGP Samples
To: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, July 19, 2018 5:01 PM
From: Lori Bailey [mailto:lori@phoenixlabs.com]

<image001.png>
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn
| 860.852.5214 | 860-729-7502 (cell)
Tighe & Bond | 213 Court Street Suite 1100 | Middletown, CT 06457
Lynn E. Willey, P.G., LEP | Senior Environmental Scientist

Thank U.

I will check with Ben on SB-42 (7-9'). This one should be on hold but not sure if he has it in the cooler.

Thank you for the update. Please keep the SB 34 (5-7) on hold.

Hi Lori:

On Jul 19, 2018, at 17:03, Lynn E. Willey <LEWilley@tighebond.com> wrote:

Ben Caswell

Thank you

Both of those samples should be placed on hold. Sorry, I forgot got to put a note at the bottom.

Hi Lori,

Subject: Re: Rockville MGP Samples
Cc: Lori Bailey
To: Lynn E. Willey
Sent: Thursday, July 19, 2018 05:08 PM
From: Benjamin P. Caswell <BCaswell@tighebond.com>

Lori Bailey

GCA 94006

PHOENIX
Environmental Laboratories, Inc.

Tuesday, August 07, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA95004 - CA95008

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/18	8:15
Location Code:	TIGHE-DAS	Received by:	CP	07/20/18	15:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44				

Laboratory Data

SDG ID: GCA95004
Phoenix ID: CA95004

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	2.54	0.66	mg/Kg	1	07/21/18	EK	SW6010C
Barium	41.9	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.40	0.27	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.41	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	17.2	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Copper	15.5	0.9	mg/kg	1	07/21/18	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	10.4	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Lead	8.29	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	07/23/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/23/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/23/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/23/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/23/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/23/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/23/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/23/18	EK	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	07/21/18	EK	SW6010C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Phoenix I.D.: CA95004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/23/18	I/I	SW3010A
Vanadium	33.2	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	24.7	0.9	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	92		%		07/20/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.89	0.54	mg/Kg	1	07/24/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/23/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/23/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/20/18	NT/V	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/23/18	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/20/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	07/23/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	97		%	10	07/24/18	AW	30 - 150 %
% TCMX	90		%	10	07/24/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	07/21/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Phoenix I.D.: CA95004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
2-Chlorotoluene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	07/21/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
4-Chlorotoluene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	07/21/18	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	07/21/18	JLI	SW8260C
Acrylonitrile	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Benzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromochloromethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromodichloromethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromoform	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Bromomethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon Disulfide	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Carbon tetrachloride	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chlorobenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloroform	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Chloromethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	07/21/18	JLI	SW8260C
Dibromomethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Ethylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Isopropylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
m&p-Xylene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	07/21/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/21/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/21/18	JLI	SW8260C
Naphthalene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
n-Butylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
n-Propylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
o-Xylene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
sec-Butylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Styrene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
tert-Butylbenzene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrachloroethene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/21/18	JLI	SW8260C
Toluene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Total Xylenes	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Phoenix I.D.: CA95004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	07/21/18	JLI	SW8260C
Trichloroethene	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
Vinyl chloride	ND	6.4	ug/Kg	1	07/21/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	07/21/18	JLI	70 - 130 %
% Bromofluorobenzene	91		%	1	07/21/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	07/21/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	07/21/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	07/24/18	KCA	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Acetophenone	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Aniline	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Anthracene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Phoenix I.D.: CA95004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Benzo(ghi)perylene	310	250	ug/Kg	1	07/24/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Benzoic acid	ND	720	ug/Kg	1	07/24/18	KCA	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Carbazole	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Chrysene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Di-n-butylphthalate	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Fluoranthene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Fluorene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Isophorone	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/24/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Phenol	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Pyrene	ND	250	ug/Kg	1	07/24/18	KCA	SW8270D
Pyridine	ND	360	ug/Kg	1	07/24/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	76		%	1	07/24/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	07/24/18	KCA	30 - 130 %
% 2-Fluorophenol	53		%	1	07/24/18	KCA	30 - 130 %
% Nitrobenzene-d5	60		%	1	07/24/18	KCA	30 - 130 %
% Phenol-d5	63		%	1	07/24/18	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/24/18	KCA	30 - 130 %
Field Extraction	Completed				07/20/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-44 (10-12`)

Phoenix I.D.: CA95004

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
August 07, 2018
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

August 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/18	13:15
Location Code:	TIGHE-DAS	Received by:	CP	07/20/18	15:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44				

Laboratory Data

SDG ID: GCA95004
Phoenix ID: CA95005

Project ID: ROCKVILLE MGP
Client ID: HA-7 (0-1`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	8.84	0.74	mg/Kg	1	07/21/18	EK	SW6010C
Barium	64.6	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.54	0.30	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.65	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.1	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Copper	30.6	0.9	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.38	0.03	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	14.7	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Lead	73.4	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.7	3.7	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	07/21/18	EK	SW6010C
Vanadium	24.9	0.37	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	87.8	0.9	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	90		%		07/20/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	5.94	0.56	mg/Kg	1	07/24/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/23/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	NT/V	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	780	270	mg/Kg	5	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	5	07/23/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: HA-7 (0-1`)

Phoenix I.D.: CA95005

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	100		%	10	07/24/18	AW	30 - 150 %
% TCMX	90		%	10	07/24/18	AW	30 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	500	ug/Kg	2	07/25/18	HM	SW8270D
Acenaphthene	ND	500	ug/Kg	2	07/25/18	HM	SW8270D
Acenaphthylene	1400	500	ug/Kg	2	07/25/18	HM	SW8270D
Anthracene	560	500	ug/Kg	2	07/25/18	HM	SW8270D
Benz(a)anthracene	1500	500	ug/Kg	2	07/25/18	HM	SW8270D
Benzo(a)pyrene	1900	500	ug/Kg	2	07/25/18	HM	SW8270D
Benzo(b)fluoranthene	2100	500	ug/Kg	2	07/25/18	HM	SW8270D
Benzo(ghi)perylene	2200	500	ug/Kg	2	07/25/18	HM	SW8270D
Benzo(k)fluoranthene	1800	500	ug/Kg	2	07/25/18	HM	SW8270D
Chrysene	2000	500	ug/Kg	2	07/25/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	500	ug/Kg	2	07/25/18	HM	SW8270D
Fluoranthene	1600	500	ug/Kg	2	07/25/18	HM	SW8270D
Fluorene	ND	500	ug/Kg	2	07/25/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	2000	500	ug/Kg	2	07/25/18	HM	SW8270D
Naphthalene	ND	500	ug/Kg	2	07/25/18	HM	SW8270D
Phenanthrene	880	500	ug/Kg	2	07/25/18	HM	SW8270D
Pyrene	2400	500	ug/Kg	2	07/25/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	2	07/25/18	HM	30 - 130 %
% Nitrobenzene-d5	63		%	2	07/25/18	HM	30 - 130 %
% Terphenyl-d14	64		%	2	07/25/18	HM	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: HA-7 (0-1`)

Phoenix I.D.: CA95005

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:

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.

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
August 07, 2018
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

August 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/18	14:00
Location Code:	TIGHE-DAS	Received by:	CP	07/20/18	15:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44				

Laboratory Data

SDG ID: GCA95004
Phoenix ID: CA95006

Project ID: ROCKVILLE MGP
Client ID: HA-9 (2-2.5`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	11.8	0.82	mg/Kg	1	07/21/18	EK	SW6010C
Barium	70.1	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.41	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.83	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	15.7	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Copper	103	0.9	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.13	0.03	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	8.58	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Lead	80.9	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/21/18	EK	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	07/21/18	EK	SW6010C
Vanadium	29.2	0.41	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	60.5	0.9	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	87		%		07/20/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	7.36	0.57	mg/Kg	1	07/24/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/23/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	NT/V	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2500	570	mg/Kg	10	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	07/23/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: HA-9 (2-2.5`)

Phoenix I.D.: CA95006

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1221	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1232	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1242	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1248	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1254	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1260	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1262	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1268	ND	380	ug/Kg	10	07/24/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	96		%	10	07/24/18	AW	30 - 150 %
% TCMX	75		%	10	07/24/18	AW	30 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	1900	1300	ug/Kg	5	07/24/18	HM	SW8270D
Acenaphthene	ND	1300	ug/Kg	5	07/24/18	HM	SW8270D
Acenaphthylene	12000	1300	ug/Kg	5	07/24/18	HM	SW8270D
Anthracene	3700	1300	ug/Kg	5	07/24/18	HM	SW8270D
Benz(a)anthracene	3300	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(a)pyrene	7200	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(b)fluoranthene	6600	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(ghi)perylene	12000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(k)fluoranthene	6000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Chrysene	5100	1000	ug/Kg	5	07/24/18	HM	SW8270D
Dibenz(a,h)anthracene	2600	1000	ug/Kg	5	07/24/18	HM	SW8270D
Fluoranthene	3400	1300	ug/Kg	5	07/24/18	HM	SW8270D
Fluorene	ND	1300	ug/Kg	5	07/24/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	11000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Naphthalene	1600	1300	ug/Kg	5	07/24/18	HM	SW8270D
Phenanthrene	1900	1300	ug/Kg	5	07/24/18	HM	SW8270D
Pyrene	6000	1300	ug/Kg	5	07/24/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	55		%	5	07/24/18	HM	30 - 130 %
% Nitrobenzene-d5	47		%	5	07/24/18	HM	30 - 130 %
% Terphenyl-d14	57		%	5	07/24/18	HM	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: HA-9 (2-2.5`)

Phoenix I.D.: CA95006

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:

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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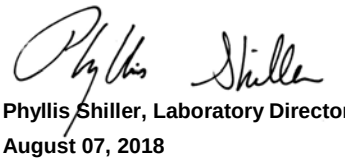

Phyllis Shiller, Laboratory Director
August 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/18	14:30
Location Code:	TIGHE-DAS	Received by:	CP	07/20/18	15:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44				

Laboratory Data

SDG ID: GCA95004
Phoenix ID: CA95007

Project ID: ROCKVILLE MGP
Client ID: HA-10 (2-2.5`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	15.1	0.76	mg/Kg	1	07/21/18	EK	SW6010C
Barium	64.9	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.40	0.30	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.67	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	20.6	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Copper	104	0.9	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.46	0.03	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	9.61	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Lead	106	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/21/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/03/18	CPP	SW6010C
SPLP Barium	0.075	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/03/18	CPP	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/03/18	CPP	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/03/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/03/18	CPP	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/03/18	CPP	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/03/18	CPP	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/03/18	CPP	SW6010C
SPLP Zinc	0.021	0.010	mg/L	1	08/03/18	CPP	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/21/18	EK	SW6010C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: HA-10 (2-2.5`)

Phoenix I.D.: CA95007

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/03/18	Q/I/I	SW3010A
Vanadium	29.1	0.38	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	52.7	0.9	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	80		%		07/20/18	Q	SW846-%Solid
SPLP Cyanide	0.02	0.01	mg/L	1	08/06/18	O/GD	SW1312/SW9012B
Total Cyanide (SW9010C Distill.)	32.8	0.57	mg/Kg	1	07/24/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/23/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	NT/V	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
SPLP Extraction Cyanide (Total)	Completed				08/02/18	I	SW1312
SPLP Digestion Mercury	Completed				08/03/18	Q/I/Q	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/02/18	I	SW1312
SPLP Extraction, Wet Chemistry	Completed				08/02/18	I	SW1312
Total Metals Digest	Completed				07/20/18	T/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	5800	620	mg/Kg	10	07/23/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	07/23/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	07/23/18	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1221	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1232	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1242	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1248	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1254	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1260	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1262	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1268	ND	410	ug/Kg	10	07/24/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	10	07/24/18	AW	30 - 150 %
% TCMX	56		%	10	07/24/18	AW	30 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	2400	1400	ug/Kg	5	07/24/18	HM	SW8270D
Acenaphthene	ND	1400	ug/Kg	5	07/24/18	HM	SW8270D
Acenaphthylene	21000	1400	ug/Kg	5	07/24/18	HM	SW8270D
Anthracene	7800	1400	ug/Kg	5	07/24/18	HM	SW8270D
Benz(a)anthracene	11000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(a)pyrene	14000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(b)fluoranthene	17000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(ghi)perylene	24000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Benzo(k)fluoranthene	17000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Chrysene	18000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Dibenz(a,h)anthracene	4400	1000	ug/Kg	5	07/24/18	HM	SW8270D
Fluoranthene	8900	1400	ug/Kg	5	07/24/18	HM	SW8270D
Fluorene	1600	1400	ug/Kg	5	07/24/18	HM	SW8270D

Ver 3

Project ID: ROCKVILLE MGP
Client ID: HA-10 (2-2.5`)

Phoenix I.D.: CA95007

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	23000	1000	ug/Kg	5	07/24/18	HM	SW8270D
Naphthalene	2700	1400	ug/Kg	5	07/24/18	HM	SW8270D
Phenanthrene	3100	1400	ug/Kg	5	07/24/18	HM	SW8270D
Pyrene	19000	1400	ug/Kg	5	07/24/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	61		%	5	07/24/18	HM	30 - 130 %
% Nitrobenzene-d5	55		%	5	07/24/18	HM	30 - 130 %
% Terphenyl-d14	58		%	5	07/24/18	HM	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:

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.

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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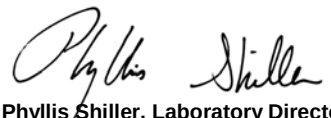

Phyllis Shiller, Laboratory Director
August 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/20/18	14:45
Location Code:	TIGHE-DAS	Received by:	CP	07/20/18	15:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44				

Laboratory Data

SDG ID: GCA95004
Phoenix ID: CA95008

Project ID: ROCKVILLE MGP
Client ID: HA-11 (1-2`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Arsenic	13.8	0.66	mg/Kg	1	07/21/18	EK	SW6010C
Barium	45.1	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Beryllium	0.39	0.26	mg/Kg	1	07/21/18	EK	SW6010C
Cadmium	0.39	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Chromium	12.4	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Copper	20.6	0.33	mg/kg	1	07/21/18	EK	SW6010C
Mercury	0.03	0.03	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	9.92	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Lead	10.2	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	07/21/18	EK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/21/18	EK	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	07/21/18	EK	SW6010C
Vanadium	29.5	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Zinc	41.0	0.33	mg/Kg	1	07/21/18	EK	SW6010C
Percent Solid	91		%		07/20/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.50	0.50	mg/Kg	1	07/24/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/23/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/20/18	JJ/V	SW3545A
Extraction of CT ETPH	Completed				07/20/18	NT/V	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/20/18	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	78	55	mg/Kg	1	07/21/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/21/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	07/21/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: HA-11 (1-2`)

Phoenix I.D.: CA95008

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/24/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	99		%	10	07/24/18	AW	30 - 150 %
% TCMX	73		%	10	07/24/18	AW	30 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Anthracene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Chrysene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Fluoranthene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Fluorene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Pyrene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	69		%	1	07/25/18	HM	30 - 130 %
% Nitrobenzene-d5	65		%	1	07/25/18	HM	30 - 130 %
% Terphenyl-d14	69		%	1	07/25/18	HM	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: HA-11 (1-2`)

Phoenix I.D.: CA95008

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:

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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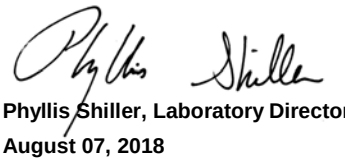

Phyllis Shiller, Laboratory Director
August 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

August 07, 2018

QA/QC Data

SDG I.D.: GCA95004

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 439944 (mg/L), QC Sample No: CA89051 (CA95004)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	79.4			82.2			80 - 120	20	l
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 439805 (mg/kg), QC Sample No: CA94472 (CA95004, CA95005, CA95006, CA95007)														
ICP Metals - Soil														
Antimony	BRL	3.3	<42	<39	NC	103			95.8			75 - 125	30	
Arsenic	BRL	0.67	5.57	4.87	13.4	97.7			94.8			75 - 125	30	
Barium	BRL	0.33	45.9	63.1	31.6	103			104			75 - 125	30	r
Beryllium	BRL	0.27	<0.34	<0.31	NC	99.2			95.1			75 - 125	30	
Cadmium	BRL	0.33	2.69	2.32	14.8	101			87.9			75 - 125	30	
Chromium	BRL	0.33	42.5	34.9	19.6	103			95.5			75 - 125	30	
Copper	BRL	0.9	203	126	46.8	100			113			75 - 125	30	r
Lead	BRL	0.33	857	556	42.6	94.6			68.1			75 - 125	30	m,r
Nickel	BRL	0.33	26.6	24.3	9.00	101			89.6			75 - 125	30	
Selenium	BRL	1.3	<1.7	<1.5	NC	111			81.8			75 - 125	30	
Silver	BRL	0.33	<0.42	<0.39	NC	107			110			75 - 125	30	
Thallium	BRL	3.0	<3.8	<3.5	NC	100			89.4			75 - 125	30	
Vanadium	BRL	0.33	22.4	24.6	9.40	107			100			75 - 125	30	
Zinc	BRL	0.9	1370	1140	18.3	96.8			NC			75 - 125	30	
QA/QC Batch 439941 (mg/kg), QC Sample No: CA94566 (CA95004, CA95005, CA95006, CA95007, CA95008)														
Mercury - Soil	BRL	0.02	1.96	5.33	92.5	94.0	95.8	1.9	NC			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 439947 (mg/L), QC Sample No: CA94624 (CA95004)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	0.007	<0.005	NC	107			103			75 - 125	20	
Arsenic	BRL	0.004	<0.004	<0.004	NC	104			100			75 - 125	20	
Barium	BRL	0.010	<0.010	<0.010	NC	99.8			95.9			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	101			97.0			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	104			101			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	102			98.3			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	100			97.2			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	104			101			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	103			98.7			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	105			101			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.3			95.2			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	101			97.9			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	107			102			75 - 125	20	

QA/QC Data

SDG I.D.: GCA95004

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 439846 (mg/kg), QC Sample No: CA95169 (CA95008)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.2	<3.6	NC	99.4			90.8			75 - 125	30
Arsenic	BRL	0.66	3.06	2.47	NC	107			88.8			75 - 125	30
Barium	BRL	0.33	31.5	37.9	18.4	109			102			75 - 125	30
Beryllium	BRL	0.26	0.39	0.37	NC	105			93.8			75 - 125	30
Cadmium	BRL	0.33	0.34	<0.36	NC	98.4			90.1			75 - 125	30
Chromium	BRL	0.33	15.9	16.3	2.50	112			98.7			75 - 125	30
Copper	BRL	0.66	15.8	13.6	15.0	107			99.5			75 - 125	30
Lead	BRL	0.60	14.9	12.2	19.9	104			91.2			75 - 125	30
Nickel	BRL	0.33	34.3	33.8	1.50	101			94.9			75 - 125	30
Selenium	BRL	1.3	<1.3	<1.4	NC	118			78.0			75 - 125	30
Silver	BRL	0.33	<0.32	<0.36	NC	115			101			75 - 125	30
Thallium	BRL	3.0	<2.8	<3.2	NC	103			89.6			75 - 125	30
Vanadium	BRL	0.33	18.7	18.9	1.10	117			98.5			75 - 125	30
Zinc	BRL	0.33	26.3	25.3	3.90	104			91.4			75 - 125	30
QA/QC Batch 441597 (mg/L), QC Sample No: CB03032 (CA95007)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	109			102			75 - 125	20
Arsenic	BRL	0.004	0.007	0.005	NC	105			97.5			75 - 125	20
Barium	BRL	0.010	0.012	0.011	NC	110			103			75 - 125	20
Beryllium	BRL	0.001	0.001	<0.001	NC	107			100			75 - 125	20
Cadmium	BRL	0.005	0.002	<0.005	NC	106			98.3			75 - 125	20
Chromium	BRL	0.010	0.002	<0.010	NC	105			97.2			75 - 125	20
Copper	BRL	0.010	0.002	<0.010	NC	109			102			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	106			97.8			75 - 125	20
Nickel	BRL	0.010	0.002	<0.010	NC	108			99.8			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	108			101			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	105			98.9			75 - 125	20
Thallium	BRL	0.005	0.007	<0.005	NC	107			99.2			75 - 125	20
Vanadium	BRL	0.010	0.047	0.044	NC	106			97.9			75 - 125	20
Zinc	BRL	0.010	0.005	0.003	NC	108			99.4			75 - 125	20
QA/QC Batch 441595 (mg/L), QC Sample No: CB03413 (CA95007)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	92.0			90.7			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%.

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.

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QA/QC Report

August 07, 2018

QA/QC Data

SDG I.D.: GCA95004

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 440034 (mg/Kg), QC Sample No: CA95005 50X (CA95004, CA95005, CA95006, CA95007, CA95008)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	5.94	5.26	12.1	104			96.5			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 441747 (mg/L), QC Sample No: CB03622 (CA95007)													
Total Cyanide	BRL	0.010	0.072	0.066	8.70	94.9			102			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

August 07, 2018

QA/QC Data

SDG I.D.: GCA95004

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 439862 (ug/kg), QC Sample No: CA94867 (CA95005, CA95006, CA95007, CA95008)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	59	60	1.7	57	49	15.1	30 - 130	30
Acenaphthene	ND	230	64	65	1.6	58	51	12.8	30 - 130	30
Acenaphthylene	ND	230	61	61	0.0	55	48	13.6	30 - 130	30
Anthracene	ND	230	67	67	0.0	61	52	15.9	30 - 130	30
Benz(a)anthracene	ND	230	67	68	1.5	61	51	17.9	30 - 130	30
Benzo(a)pyrene	ND	230	64	65	1.6	58	49	16.8	30 - 130	30
Benzo(b)fluoranthene	ND	230	67	71	5.8	62	51	19.5	30 - 130	30
Benzo(ghi)perylene	ND	230	63	62	1.6	56	53	5.5	30 - 130	30
Benzo(k)fluoranthene	ND	230	68	66	3.0	57	50	13.1	30 - 130	30
Chrysene	ND	230	66	66	0.0	59	51	14.5	30 - 130	30
Dibenz(a,h)anthracene	ND	230	65	64	1.6	58	54	7.1	30 - 130	30
Fluoranthene	ND	230	66	67	1.5	64	54	16.9	30 - 130	30
Fluorene	ND	230	65	66	1.5	60	53	12.4	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	68	67	1.5	60	55	8.7	30 - 130	30
Naphthalene	ND	230	60	61	1.7	58	49	16.8	30 - 130	30
Phenanthrene	ND	230	64	65	1.6	60	50	18.2	30 - 130	30
Pyrene	ND	230	67	69	2.9	65	56	14.9	30 - 130	30
% 2-Fluorobiphenyl	63	%	61	63	3.2	56	49	13.3	30 - 130	30
% Nitrobenzene-d5	60	%	65	65	0.0	66	58	12.9	30 - 130	30
% Terphenyl-d14	62	%	64	64	0.0	62	52	17.5	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 439961 (ug/kg), QC Sample No: CA94870 (CA95004)										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	96	97	1.0	102	95	7.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	97	95	2.1	102	95	7.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	100	1.0	105	91	14.3	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	97	95	2.1	100	95	5.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	100	99	1.0	100	94	6.2	70 - 130	30
1,1-Dichloroethene	ND	5.0	98	99	1.0	107	96	10.8	70 - 130	30
1,1-Dichloropropene	ND	5.0	98	99	1.0	106	97	8.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	93	96	3.2	102	91	11.4	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	92	93	1.1	97	92	5.3	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	91	95	4.3	104	90	14.4	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	98	3.1	105	82	24.6	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	97	98	1.0	104	103	1.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	95	96	1.0	98	95	3.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	92	93	1.1	102	90	12.5	70 - 130	30
1,2-Dichloroethane	ND	5.0	93	93	0.0	94	87	7.7	70 - 130	30
1,2-Dichloropropane	ND	5.0	100	99	1.0	102	95	7.1	70 - 130	30

QA/QC Data

SDG I.D.: GCA95004

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,3,5-Trimethylbenzene	ND	1.0	98	100	2.0	107	95	11.9	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	92	94	2.2	102	90	12.5	70 - 130	30
1,3-Dichloropropane	ND	5.0	95	95	0.0	99	93	6.3	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	89	91	2.2	100	87	13.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	100	103	3.0	94	92	2.2	70 - 130	30
2-Chlorotoluene	ND	5.0	95	98	3.1	105	96	9.0	70 - 130	30
2-Hexanone	ND	25	95	95	0.0	87	84	3.5	70 - 130	30
2-Isopropyltoluene	ND	5.0	106	108	1.9	115	107	7.2	70 - 130	30
4-Chlorotoluene	ND	5.0	94	95	1.1	101	90	11.5	70 - 130	30
4-Methyl-2-pentanone	ND	25	99	102	3.0	92	90	2.2	70 - 130	30
Acetone	ND	10	86	88	2.3	79	91	14.1	70 - 130	30
Acrylonitrile	ND	5.0	101	99	2.0	92	88	4.4	70 - 130	30
Benzene	ND	1.0	97	95	2.1	100	92	8.3	70 - 130	30
Bromobenzene	ND	5.0	95	95	0.0	104	95	9.0	70 - 130	30
Bromochloromethane	ND	5.0	97	96	1.0	102	96	6.1	70 - 130	30
Bromodichloromethane	ND	5.0	97	96	1.0	98	93	5.2	70 - 130	30
Bromoform	ND	5.0	96	96	0.0	97	93	4.2	70 - 130	30
Bromomethane	ND	5.0	107	104	2.8	111	103	7.5	70 - 130	30
Carbon Disulfide	ND	5.0	107	109	1.9	110	103	6.6	70 - 130	30
Carbon tetrachloride	ND	5.0	97	99	2.0	101	95	6.1	70 - 130	30
Chlorobenzene	ND	5.0	94	94	0.0	101	93	8.2	70 - 130	30
Chloroethane	ND	5.0	111	110	0.9	115	106	8.1	70 - 130	30
Chloroform	ND	5.0	94	95	1.1	96	92	4.3	70 - 130	30
Chloromethane	ND	5.0	105	105	0.0	99	90	9.5	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	100	100	0.0	105	102	2.9	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	102	1.0	103	97	6.0	70 - 130	30
Dibromochloromethane	ND	3.0	100	100	0.0	102	98	4.0	70 - 130	30
Dibromomethane	ND	5.0	93	93	0.0	98	91	7.4	70 - 130	30
Dichlorodifluoromethane	ND	5.0	102	106	3.8	106	98	7.8	70 - 130	30
Ethylbenzene	ND	1.0	96	97	1.0	96	89	7.6	70 - 130	30
Hexachlorobutadiene	ND	5.0	92	98	6.3	105	92	13.2	70 - 130	30
Isopropylbenzene	ND	1.0	100	101	1.0	109	102	6.6	70 - 130	30
m&p-Xylene	ND	2.0	94	95	1.1	84	78	7.4	70 - 130	30
Methyl ethyl ketone	ND	5.0	92	91	1.1	77	80	3.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	106	0.9	107	103	3.8	70 - 130	30
Methylene chloride	ND	5.0	82	81	1.2	105	101	3.9	70 - 130	30
Naphthalene	ND	5.0	101	104	2.9	107	106	0.9	70 - 130	30
n-Butylbenzene	ND	1.0	94	100	6.2	109	94	14.8	70 - 130	30
n-Propylbenzene	ND	1.0	96	99	3.1	107	94	12.9	70 - 130	30
o-Xylene	ND	2.0	98	101	3.0	95	87	8.8	70 - 130	30
p-Isopropyltoluene	ND	1.0	98	103	5.0	110	101	8.5	70 - 130	30
sec-Butylbenzene	ND	1.0	101	105	3.9	111	103	7.5	70 - 130	30
Styrene	ND	5.0	100	100	0.0	105	98	6.9	70 - 130	30
tert-Butylbenzene	ND	1.0	100	102	2.0	108	102	5.7	70 - 130	30
Tetrachloroethene	ND	5.0	91	94	3.2	102	94	8.2	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	104	106	1.9	88	86	2.3	70 - 130	30
Toluene	ND	1.0	95	95	0.0	82	73	11.6	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	98	100	2.0	105	99	5.9	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	96	0.0	94	88	6.6	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	109	110	0.9	104	96	8.0	70 - 130	30
Trichloroethene	ND	5.0	96	97	1.0	108	102	5.7	70 - 130	30
Trichlorofluoromethane	ND	5.0	101	102	1.0	101	95	6.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	95	100	5.1	108	101	6.7	70 - 130	30

QA/QC Data

SDG I.D.: GCA95004

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Vinyl chloride	ND	5.0	113	113	0.0	115	106	8.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	105	%	99	101	2.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	92	%	100	99	1.0	96	99	3.1	70 - 130	30	
% Dibromofluoromethane	106	%	100	99	1.0	99	99	0.0	70 - 130	30	
% Toluene-d8	100	%	102	102	0.0	102	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 440003 (ug/Kg), QC Sample No: CA95006 2X (CA95004, CA95005, CA95006, CA95007, CA95008)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	103	97	6.0	53	59	10.7	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	101	107	5.8	58	62	6.7	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	88	%	129	116	10.6	70	87	21.7	30 - 150	30	
% TCMX (Surrogate Rec)	94	%	118	111	6.1	59	64	8.1	30 - 150	30	
QA/QC Batch 439841 (mg/Kg), QC Sample No: CA95008 (CA95004, CA95005, CA95006, CA95007, CA95008)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	86	102	17.0	86	83	3.6	60 - 120	30	
% n-Pentacosane	62	%	79	92	15.2	91	88	3.4	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 439997 (ug/kg), QC Sample No: CA95804 (CA95004)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	61	58	5.0	58	54	7.1	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	59	56	5.2	56	55	1.8	30 - 130	30	
1,2-Dichlorobenzene	ND	180	52	53	1.9	52	55	5.6	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	62	59	5.0	52	51	1.9	30 - 130	30	
1,3-Dichlorobenzene	ND	230	50	47	6.2	47	50	6.2	30 - 130	30	
1,4-Dichlorobenzene	ND	230	55	50	9.5	50	51	2.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	68	70	2.9	60	60	0.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	69	67	2.9	63	63	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	130	70	65	7.4	62	59	5.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	64	63	1.6	64	56	13.3	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	19	NC	59	50	16.5	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	64	64	0.0	59	56	5.2	30 - 130	30	
2,6-Dinitrotoluene	ND	130	66	64	3.1	58	56	3.5	30 - 130	30	
2-Chloronaphthalene	ND	230	65	64	1.6	60	57	5.1	30 - 130	30	
2-Chlorophenol	ND	230	61	56	8.5	60	58	3.4	30 - 130	30	
2-Methylnaphthalene	ND	230	60	58	3.4	57	57	0.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	68	58	15.9	70	65	7.4	30 - 130	30	
2-Nitroaniline	ND	330	77	79	2.6	50	44	12.8	30 - 130	30	
2-Nitrophenol	ND	230	61	56	8.5	61	64	4.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	68	58	15.9	70	65	7.4	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	65	67	3.0	18	<10	NC	30 - 130	30	m
3-Nitroaniline	ND	330	71	70	1.4	51	40	24.2	30 - 130	30	

QA/QC Data

SDG I.D.: GCA95004

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4,6-Dinitro-2-methylphenol	ND	230	17	30	55.3	61	51	17.9	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	66	64	3.1	60	58	3.4	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	66	64	3.1	64	54	16.9	30 - 130	30	
4-Chloroaniline	ND	230	61	69	12.3	<10	<10	NC	30 - 130	30	m
4-Chlorophenyl phenyl ether	ND	230	65	64	1.6	60	57	5.1	30 - 130	30	
4-Nitroaniline	ND	230	63	62	1.6	57	56	1.8	30 - 130	30	
4-Nitrophenol	ND	230	64	64	0.0	67	56	17.9	30 - 130	30	
Acenaphthene	ND	230	66	65	1.5	62	59	5.0	30 - 130	30	
Acenaphthylene	ND	130	59	58	1.7	57	56	1.8	30 - 130	30	
Acetophenone	ND	230	54	50	7.7	55	53	3.7	30 - 130	30	
Aniline	ND	330	29	36	21.5	<10	<10	NC	30 - 130	30	l,m
Anthracene	ND	230	66	64	3.1	57	55	3.6	30 - 130	30	
Benz(a)anthracene	ND	230	63	62	1.6	55	61	10.3	30 - 130	30	
Benzidine	ND	330	39	39	0.0	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	62	59	5.0	49	55	11.5	30 - 130	30	
Benzo(b)fluoranthene	ND	160	64	63	1.6	56	62	10.2	30 - 130	30	
Benzo(ghi)perylene	ND	230	62	60	3.3	46	39	16.5	30 - 130	30	
Benzo(k)fluoranthene	ND	230	68	65	4.5	53	58	9.0	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	72	63	13.3	30 - 130	30	l
Benzyl butyl phthalate	ND	230	63	61	3.2	53	48	9.9	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	63	60	4.9	58	57	1.7	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	64	55	15.1	47	48	2.1	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	46	46	0.0	46	47	2.2	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	65	62	4.7	56	48	15.4	30 - 130	30	
Carbazole	ND	230	66	67	1.5	58	58	0.0	30 - 130	30	
Chrysene	ND	230	65	65	0.0	53	60	12.4	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	64	63	1.6	49	45	8.5	30 - 130	30	
Dibenzofuran	ND	230	64	64	0.0	59	57	3.4	30 - 130	30	
Diethyl phthalate	ND	230	65	64	1.6	61	55	10.3	30 - 130	30	
Dimethylphthalate	ND	230	67	66	1.5	60	55	8.7	30 - 130	30	
Di-n-butylphthalate	ND	670	66	65	1.5	56	51	9.3	30 - 130	30	
Di-n-octylphthalate	ND	230	66	66	0.0	54	51	5.7	30 - 130	30	
Fluoranthene	ND	230	66	65	1.5	59	71	18.5	30 - 130	30	
Fluorene	ND	230	66	65	1.5	63	59	6.6	30 - 130	30	
Hexachlorobenzene	ND	130	67	63	6.2	58	57	1.7	30 - 130	30	
Hexachlorobutadiene	ND	230	61	56	8.5	55	58	5.3	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	55	50	9.5	22	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	53	50	5.8	53	42	23.2	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	61	60	1.7	47	43	8.9	30 - 130	30	
Isophorone	ND	130	57	55	3.6	54	51	5.7	30 - 130	30	
Naphthalene	ND	230	59	57	3.4	57	58	1.7	30 - 130	30	
Nitrobenzene	ND	130	59	54	8.8	58	57	1.7	30 - 130	30	
N-Nitrosodimethylamine	ND	230	53	50	5.8	49	45	8.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	65	57	13.1	63	60	4.9	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	64	65	1.6	58	56	3.5	30 - 130	30	
Pentachloronitrobenzene	ND	230	64	60	6.5	54	52	3.8	30 - 130	30	
Pentachlorophenol	ND	230	58	64	9.8	66	65	1.5	30 - 130	30	
Phenanthrene	ND	130	62	62	0.0	63	71	11.9	30 - 130	30	
Phenol	ND	230	64	58	9.8	63	56	11.8	30 - 130	30	
Pyrene	ND	230	66	65	1.5	57	68	17.6	30 - 130	30	
Pyridine	ND	230	37	35	5.6	<10	<10	NC	30 - 130	30	m
% 2,4,6-Tribromophenol	62	%	64	63	1.6	61	60	1.7	30 - 130	30	
% 2-Fluorobiphenyl	63	%	62	62	0.0	57	57	0.0	30 - 130	30	

QA/QC Data

SDG I.D.: GCA95004

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% 2-Fluorophenol	54	%		59	54	8.8	57	53	7.3	30 - 130	30
% Nitrobenzene-d5	56	%		58	55	5.3	58	57	1.7	30 - 130	30
% Phenol-d5	58	%		66	60	9.5	66	57	14.6	30 - 130	30
% Terphenyl-d14	64	%		69	66	4.4	57	52	9.2	30 - 130	30

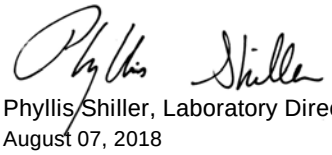
Comment:

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%)

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

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

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



Phyllis Shiller, Laboratory Director
August 07, 2018

Tuesday, August 07, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA95004 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA95005	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	1900	500	1000	1000	ug/Kg
CA95005	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2000	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1900	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2100	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1500	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2200	500	1000	1000	ug/Kg
CA95005	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2000	500	1000	1000	ug/Kg
CA95005	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2000	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1500	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1900	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2100	500	1000	1000	ug/Kg
CA95005	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1800	500	1000	1000	ug/Kg
CA95005	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	780	270	500	500	mg/Kg
CA95006	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	11000	1000	7800	7800	ug/Kg
CA95006	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	2600	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	7200	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	12000	1000	8400	8400	ug/Kg
CA95006	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	2600	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7200	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6600	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3300	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	12000	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	5100	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	11000	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	2600	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3300	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	6600	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	6000	1000	1000	1000	ug/Kg
CA95006	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	7200	1000	1000	1000	ug/Kg
CA95006	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	2500	570	500	500	mg/Kg
CA95006	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	11.8	0.82	10	10	mg/Kg
CA95006	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	11.8	0.82	10	10	mg/Kg
CA95007	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	4400	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	23000	1000	7800	7800	ug/Kg
CA95007	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	11000	1000	7800	7800	ug/Kg
CA95007	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	17000	1000	7800	7800	ug/Kg
CA95007	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4400	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	24000	1000	8400	8400	ug/Kg

Tuesday, August 07, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA95004 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA95007	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	23000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	1000	8400	8400	ug/Kg
CA95007	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	23000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	24000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4400	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	18000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	17000	1000	1000	1000	ug/Kg
CA95007	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	17000	1000	1000	1000	ug/Kg
CA95007	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	5800	620	2500	2500	mg/Kg
CA95007	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	5800	620	500	500	mg/Kg
CA95007	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	5800	620	2500	2500	mg/Kg
CA95007	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	15.1	0.76	10	10	mg/Kg
CA95007	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	15.1	0.76	10	10	mg/Kg
CA95008	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	13.8	0.66	10	10	mg/Kg
CA95008	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	13.8	0.66	10	10	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

Laboratory Sample ID(s): CA95004-CA95008 ***Sampling Date(s):*** 7/20/2018

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, 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: Helen Geoghegan **Position:** Project Manager

Printed Name: Helen Geoghegan **Date:** Tuesday, August 07, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 07, 2018

SDG I.D.: GCA95004

SDG Comments

8270 Semi-volatile Organics CA95005 - CA95008:
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

Cyanide Narration

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

Instrument:

LACHAT 07/24/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/24/18

CA95004, CA95005, CA95006, CA95007, CA95008

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 08/06/18-1 Dustin Harrison, Greg Danielewski, Chemist 08/06/18

CA95007

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 441747 (CB03622)

CA95007

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

QC (Site Specific):

Batch 440034 (CA95005)

CA95004, CA95005, CA95006, CA95007, CA95008

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

ETPH Narration

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RCP Certification Report

August 07, 2018

SDG I.D.: GCA95004

ETPH Narration

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

Instrument:

AU-FID1 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA95005, CA95006, CA95007

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL1 07/20/18-1 Jeff Bucko, Chemist 07/20/18

CA95008

The initial calibration (ETPH605I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 07/23/18-1 Jeff Bucko, Chemist 07/23/18

CA95004

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Site Specific):

Batch 439841 (CA95008)

CA95004, CA95005, CA95006, CA95007, CA95008

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? No.

QC Batch 439941 (Samples: CA95004, CA95005, CA95006, CA95007, CA95008): -----

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

QC Batch 439944 (Samples: CA95004): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Mercury)

Instrument:

MERLIN 07/23/18 08:10 Rick Schweitzer, Chemist 07/23/18

CA95004

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Certification Report

August 07, 2018

SDG I.D.: GCA95004

Mercury Narration

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

MERLIN 07/24/18 09:22 Rick Schweitzer, Chemist 07/24/18

CA95004, CA95005, CA95006, CA95007, CA95008

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 08/03/18 07:25 Rick Schweitzer, Chemist 08/03/18

CA95007

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 439941 (CA94566)

CA95004, CA95005, CA95006, CA95007, CA95008

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

Batch 439944 (CA89051)

CA95004

All LCS recoveries were within 80 - 120 with the following exceptions: Mercury(79.4%)
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 441595 (CB03413)

CA95007

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Certification Report

August 07, 2018

SDG I.D.: GCA95004

Mercury Narration

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? No.

QC Batch 439805 (Samples: CA95004, CA95005, CA95006, CA95007): -----

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

Instrument:

ARCOS 07/20/18 11:09 Emily Kolominskaya, Chemist 07/20/18

CA95004, CA95005, CA95006, CA95007, CA95008

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 07/23/18 09:31 Emily Kolominskaya, Chemist 07/23/18

CA95004

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

BLUE 08/03/18 14:26 Cindy Pearce, Chemist 08/03/18

CA95007

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 439805 (CA94472)

CA95004, CA95005, CA95006, CA95007

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

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Certification Report

August 07, 2018

SDG I.D.: GCA95004

ICP Metals Narration

Batch 439846 (CA95169)

CA95008

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

Batch 439947 (CA94624)

CA95004

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

Batch 441597 (CB03032)

CA95007

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-ECD8 07/24/18-1 Adam Werner, Chemist 07/24/18

CA95004, CA95005, CA95006, CA95007, CA95008

The initial calibration (PC720AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC720BI) 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 (Site Specific):

Batch 440003 (CA95006)

CA95004, CA95005, CA95006, CA95007, CA95008

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

SVOA Narration

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

QC Batch 439997 (Samples: CA95004): -----

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

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

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

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Tel. (860) 645-1102 Fax (860) 645-0823

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SDG I.D.: GCA95004

SVOA Narration

Instrument:

CHEM05 07/24/18-1 Harry Mullin, Chemist 07/24/18

CA95006, CA95007

Initial Calibration Verification (CHEM05/BN_0722):
95% 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 (CHEM05/0724_02-BN_0722):
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.

CHEM06 07/25/18-1 Harry Mullin, Chemist 07/25/18

CA95005, CA95008

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_0627):
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 (CHEM06/0725_02-BN_0627):
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 07/23/18-2 Matt Richard, Chemist 07/23/18

CA95004

Initial Calibration Verification (CHEM27/SPLIT_0722):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 4-Chloroaniline 29% (20%)
The following compounds did not meet recommended response factors: Hexachlorobenzene 0.087 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/0723_14A-SPLIT_0722):
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-Nitroaniline 35%L (30%), Aniline 35%L (30%)
The following compounds did not meet maximum % deviations: None.

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RCP Certification Report

August 07, 2018

SDG I.D.: GCA95004

SVOA Narration

The following compounds did not meet recommended response factors: Hexachlorobenzene 0.072 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 439862 (CA94867)

CA95005, CA95006, CA95007, CA95008

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%)

Batch 439997 (CA95804)

CA95004

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(17%), Aniline(29%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(19%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(55.3%)
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%)

VOA Narration

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

Instrument:

CHEM26 07/21/18-1 Jane Li, Chemist 07/21/18

CA95004

Initial Calibration Verification (CHEM26/VT-0718):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Methylene chloride 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 (CHEM26/0721_02-VT-0718):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 439961 (CA94870)

CA95004

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.

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RCP Certification Report

August 07, 2018

SDG I.D.: GCA95004

VOA Narration

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

Temperature Narration

The samples were received at 1.3C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 1.3°C Pg 1 of 1

Contact Options:
[ ] Fax:
[ ] Phone:
[x] Email: LWilley@tylerbond.com

Customer: Tighe + Bond
Address: 213 Court ST Suite 1100
Middletown CT

Project: Rocky Hill MCP
Report to: Lynn Willey
Invoice to: Tighe + Bond

Project P.O: 14-0755-44

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/20/14

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	ETPHs	Total RCRA metals	SPLP RCRA metals	Total Cyanide	PCBs	PAH	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	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
95004	SB-44 (10-12 ft)	S	7/20/14	0915	X	X	X	X	X	X	X			3	1							
95005	HA-7 (0-1 ft)			1315			X	X		X	X	X			1							
95006	HA-9 (2-2.5 ft)			1400			X	X		X	X	X			1							
95007	HA-10 (2-2.5 ft)			1430			X	X		X	X	X			1							
95008	HA-11 (1-2 ft)			1445			X	X		X	X	X			1							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/20/14	15:14

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TI012517BA

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
[x] I/C DEC
[ ] Other

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

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

Client Services

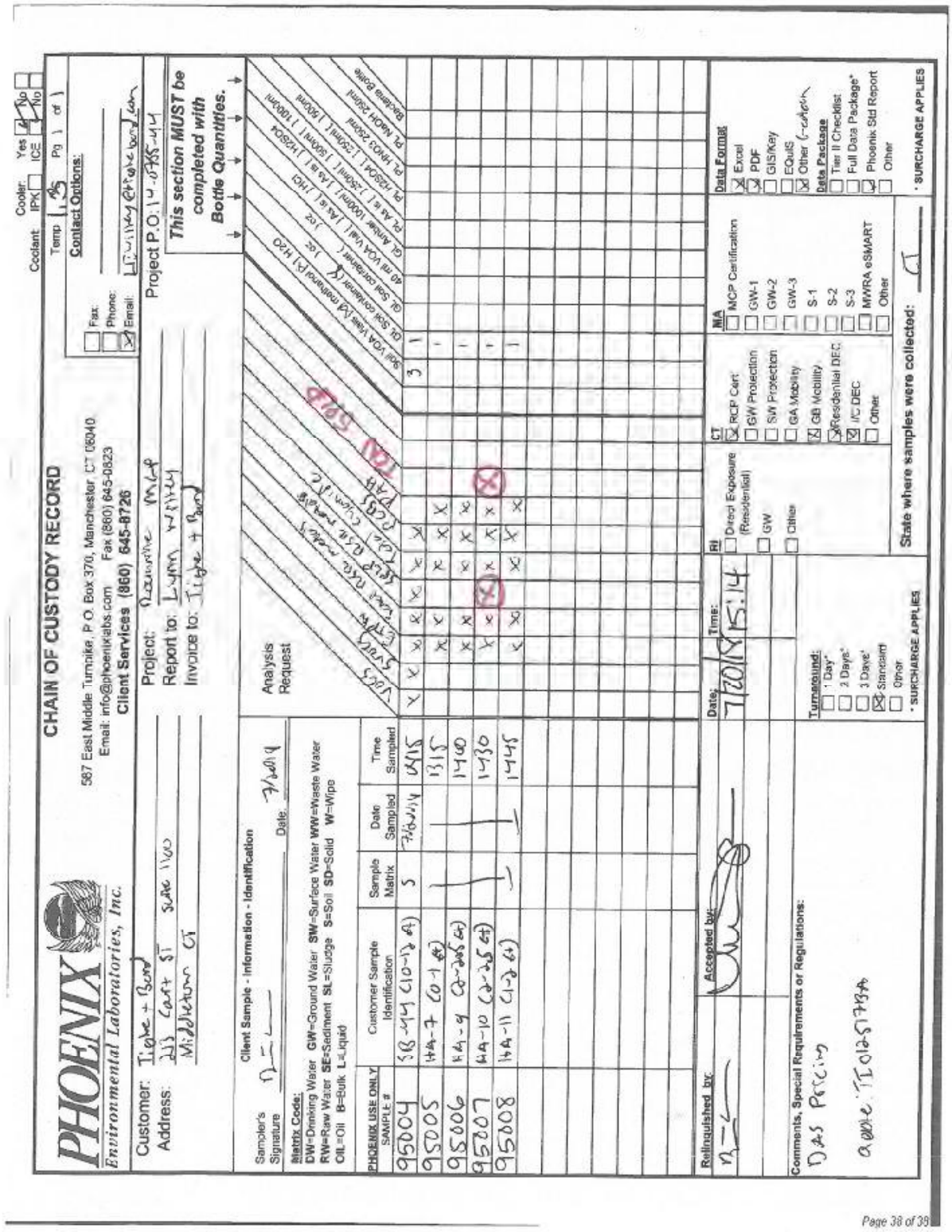
From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, August 02, 2018 4:14 PM
To: Client Services
Subject: Activation Rockville MGP HA-10
Attachments: HA-10 Activation SPLP TCN and metals.pdf

Hi there:

Please activate HA-10 (95007) for SPLP TCN (within hold time) and SPLP RSR metals.

Thanks

Lynn E. Willey, P.G., 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.

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 1.5 °C Pg 1 of 1

Contact Options:
Fax:
Phone:
Email:

Customer: Tighe + Bond
Address: 213 Court St Suite 1100 Middletown CT

Project: Naugatuck Main
Report to: Lynn Murray
Invoice to: Tighe + Bond

Project P.O.: [illegible]

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature: [illegible] Date: 7/30/19

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
95004	SB-104 (10-12 ft)	S	7/30/19	0915
95005	MA-7 (0-1 ft)			1315
95006	MA-9 (0-2.5 ft)			1400
95007	MA-10 (0-2.5 ft)			1430
95008	MA-11 (0-2 ft)			1445

Analysis Request

	SOIL VOA Vials (4 preserved / 1 soil)	GL Skip container (1 soil)	60 ml VOA Vial (1 soil / 1 H2O)	GL Amber 1000ml (1 soil / 1 H2O)	PL H2SO4 (1 soil / 1 soil / 1 H2O)	PL HNO3 250ml (1 soil / 1 soil / 1 soil)	PL NaOH 250ml (1 soil / 1 soil / 1 soil)	Bacteria Bottle
95004	3	1						
95005								
95006								
95007								
95008								

Relinquished by: [signature] Date: 7/30/19 Time: 15:14
Accepted by: [signature]

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

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Cities

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 (-csv)

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

* SURCHARGE APPLIES

Comments, Special Requirements or Regulations:
Gas Pricing
Quote: TL0125738A

Page 38 of 38

PHOENIX
Environmental Laboratories, Inc.

Monday, August 13, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA96212 - CA96216

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/23/18	9:15
Location Code:	TIGHE-DAS	Received by:	DL	07/23/18	17:18
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA96212
Phoenix ID: CA96212

Project ID: ROCKVILLE MGP
Client ID: SB-51 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Arsenic	10.7	0.66	mg/Kg	1	07/25/18	EK	SW6010C
Barium	62.6	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Beryllium	0.63	0.26	mg/Kg	1	07/25/18	EK	SW6010C
Cadmium	0.68	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Chromium	12.3	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Copper	69.7	0.33	mg/kg	1	07/25/18	EK	SW6010C
Mercury	0.19	0.13	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	14.3	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Lead	44.2	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Antimony	< 3.3	3.3	mg/Kg	1	07/25/18	EK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/25/18	EK	SW6010C
Thallium	< 3.0	3.0	mg/Kg	1	07/25/18	EK	SW6010C
Vanadium	21.5	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Zinc	63.7	0.33	mg/Kg	1	07/25/18	EK	SW6010C
Percent Solid	91		%		07/23/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	7.25	0.55	mg/Kg	1	07/26/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/24/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/24/18	IG/VCK	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/24/18	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	480	270	mg/Kg	5	07/25/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	94		%	5	07/25/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-51 (2-4 FT)

Phoenix I.D.: CA96212

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polynuclear Aromatic HC							
2-Methylnaphthalene	350	250	ug/Kg	1	07/25/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/25/18	HM	SW8270D
Acenaphthylene	1600	250	ug/Kg	1	07/25/18	HM	SW8270D
Anthracene	1500	250	ug/Kg	1	07/25/18	HM	SW8270D
Benz(a)anthracene	5500	1000	ug/Kg	5	07/25/18	HM	SW8270D
Benzo(a)pyrene	5700	1000	ug/Kg	5	07/25/18	HM	SW8270D
Benzo(b)fluoranthene	6000	250	ug/Kg	1	07/25/18	HM	SW8270D
Benzo(ghi)perylene	5200	1000	ug/Kg	5	07/25/18	HM	SW8270D
Benzo(k)fluoranthene	4900	1000	ug/Kg	5	07/25/18	HM	SW8270D
Chrysene	6100	1000	ug/Kg	5	07/25/18	HM	SW8270D
Dibenz(a,h)anthracene	1200	250	ug/Kg	1	07/25/18	HM	SW8270D
Fluoranthene	7200	1300	ug/Kg	5	07/25/18	HM	SW8270D
Fluorene	770	250	ug/Kg	1	07/25/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	5300	1000	ug/Kg	5	07/25/18	HM	SW8270D
Naphthalene	560	250	ug/Kg	1	07/25/18	HM	SW8270D
Phenanthrene	6500	1300	ug/Kg	5	07/25/18	HM	SW8270D
Pyrene	9100	1300	ug/Kg	5	07/25/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	07/25/18	HM	30 - 130 %
% Nitrobenzene-d5	68		%	1	07/25/18	HM	30 - 130 %
% Terphenyl-d14	64		%	1	07/25/18	HM	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.

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.

Cyanide LCS value changed from average value to mean value of 63.9 mg/Kg per Phyllis and Kathy.

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

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



Phyllis Shiller, Laboratory Director
August 13, 2018
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

August 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/23/18	9:30
Location Code:	TIGHE-DAS	Received by:	DL	07/23/18	17:18
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA96212
Phoenix ID: CA96213

Project ID: ROCKVILLE MGP
Client ID: SB-51 (10-11 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		07/23/18	Q	SW846-%Solid
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
2-Chlorotoluene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
2-Hexanone	ND	40	ug/Kg	1	07/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
4-Chlorotoluene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-51 (10-11 FT)

Phoenix I.D.: CA96213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	40	ug/Kg	1	07/24/18	JLI	SW8260C
Acetone	ND	400	ug/Kg	1	07/24/18	JLI	SW8260C
Acrylonitrile	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Benzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Bromobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Bromochloromethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Bromodichloromethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Bromoform	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Bromomethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon Disulfide	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon tetrachloride	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Chlorobenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroform	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Chloromethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromochloromethane	ND	4.7	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromomethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Ethylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Isopropylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
m&p-Xylene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	47	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	1	07/24/18	JLI	SW8260C
Methylene chloride	ND	16	ug/Kg	1	07/24/18	JLI	SW8260C
Naphthalene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
n-Butylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
n-Propylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
o-Xylene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
sec-Butylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Styrene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
tert-Butylbenzene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrachloroethene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	16	ug/Kg	1	07/24/18	JLI	SW8260C
Toluene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Total Xylenes	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	16	ug/Kg	1	07/24/18	JLI	SW8260C
Trichloroethene	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
Vinyl chloride	ND	7.9	ug/Kg	1	07/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	105		%	1	07/24/18	JLI	70 - 130 %
% Bromofluorobenzene	87		%	1	07/24/18	JLI	70 - 130 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-51 (10-11 FT)

Phoenix I.D.: CA96213

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	102		%	1	07/24/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/24/18	JLI	70 - 130 %
Field Extraction	Completed				07/23/18		SW5035A

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

Comments:

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
August 13, 2018
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

August 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/23/18	10:30
Location Code:	TIGHE-DAS	Received by:	DL	07/23/18	17:18
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA96212
Phoenix ID: CA96214

Project ID: ROCKVILLE MGP
Client ID: SB-50 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Arsenic	15.9	0.86	mg/Kg	1	07/25/18	EK	SW6010C
Barium	32.4	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Beryllium	1.04	0.34	mg/Kg	1	07/25/18	EK	SW6010C
Cadmium	0.46	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Chromium	12.5	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Copper	56.4	0.43	mg/kg	1	07/25/18	EK	SW6010C
Mercury	0.41	0.15	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	12.4	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Lead	273	4.3	mg/Kg	10	07/25/18	EK	SW6010C
Antimony	17.1	4.3	mg/Kg	1	07/25/18	EK	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	07/25/18	EK	SW6010C
Thallium	< 3.9	3.9	mg/Kg	1	07/25/18	EK	SW6010C
Vanadium	25.9	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Zinc	39.1	0.43	mg/Kg	1	07/25/18	EK	SW6010C
Percent Solid	80		%		07/23/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.63	0.63	mg/Kg	1	07/26/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/24/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/24/18	IG/VCK	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/24/18	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	210	62	mg/Kg	1	07/25/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	97		%	1	07/25/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-50 (2-4 FT)

Phoenix I.D.: CA96214

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	7.1	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
2-Chlorotoluene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
2-Hexanone	ND	59	ug/Kg	1	07/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
4-Chlorotoluene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	59	ug/Kg	1	07/24/18	JLI	SW8260C
Acetone	ND	590	ug/Kg	1	07/24/18	JLI	SW8260C
Acrylonitrile	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Benzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Bromobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Bromochloromethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Bromodichloromethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Bromoform	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Bromomethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon Disulfide	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon tetrachloride	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Chlorobenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroform	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Chloromethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromochloromethane	ND	7.1	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromomethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Ethylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Isopropylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-50 (2-4 FT)

Phoenix I.D.: CA96214

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	71	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	24	ug/Kg	1	07/24/18	JLI	SW8260C
Methylene chloride	ND	24	ug/Kg	1	07/24/18	JLI	SW8260C
Naphthalene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
n-Butylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
n-Propylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
o-Xylene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
p-Isopropyltoluene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
sec-Butylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Styrene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
tert-Butylbenzene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrachloroethene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	24	ug/Kg	1	07/24/18	JLI	SW8260C
Toluene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Total Xylenes	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	24	ug/Kg	1	07/24/18	JLI	SW8260C
Trichloroethene	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
Vinyl chloride	ND	12	ug/Kg	1	07/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	113		%	1	07/24/18	JLI	70 - 130 %
% Bromofluorobenzene	86		%	1	07/24/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/24/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	07/24/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Acenaphthylene	290	290	ug/Kg	1	07/25/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Benz(a)anthracene	360	290	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(a)pyrene	530	290	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(b)fluoranthene	410	290	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(ghi)perylene	490	290	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(k)fluoranthene	430	290	ug/Kg	1	07/25/18	KCA	SW8270D
Chrysene	570	290	ug/Kg	1	07/25/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Fluoranthene	480	290	ug/Kg	1	07/25/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	500	290	ug/Kg	1	07/25/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/25/18	KCA	SW8270D
Phenanthrene	610	290	ug/Kg	1	07/25/18	KCA	SW8270D
Pyrene	740	290	ug/Kg	1	07/25/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	1	07/25/18	KCA	30 - 130 %
% Nitrobenzene-d5	70		%	1	07/25/18	KCA	30 - 130 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-50 (2-4 FT)

Phoenix I.D.: CA96214

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	66		%	1	07/25/18	KCA	30 - 130 %
Field Extraction	Completed				07/23/18		SW5035A

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

Comments:

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
August 13, 2018
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

August 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/23/18	14:05
Location Code:	TIGHE-DAS	Received by:	DL	07/23/18	17:18
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA96212
Phoenix ID: CA96215

Project ID: ROCKVILLE MGP
Client ID: SB-32 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Arsenic	10.2	0.71	mg/Kg	1	07/25/18	EK	SW6010C
Barium	40.9	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Beryllium	< 0.29	0.29	mg/Kg	1	07/25/18	EK	SW6010C
Cadmium	0.47	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Chromium	7.68	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Copper	33.9	0.36	mg/kg	1	07/25/18	EK	SW6010C
Mercury	0.14	0.13	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	11.8	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Lead	61.3	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	07/25/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/25/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/08/18	EK	SW6010C
SPLP Barium	0.035	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/08/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/07/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/08/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/25/18	EK	SW6010C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-32 (2-4 FT)

Phoenix I.D.: CA96215

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/07/18	Q/I/Q	SW3010A
Vanadium	19.0	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Zinc	13.0	0.36	mg/Kg	1	07/25/18	EK	SW6010C
Percent Solid	91		%		07/23/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	25.3	0.50	mg/Kg	1	07/26/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/24/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/24/18	IG/VCK	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				08/07/18	Q/Q	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/06/18	Q	SW1312
Total Metals Digest	Completed				07/24/18	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2900	270	mg/Kg	5	07/25/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/25/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
2-Chlorotoluene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	07/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
4-Chlorotoluene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	07/24/18	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	07/24/18	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Bromobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-32 (2-4 FT)

Phoenix I.D.: CA96215

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/24/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/24/18	JLI	SW8260C
Naphthalene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
n-Butylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
n-Propylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
sec-Butylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
tert-Butylbenzene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/24/18	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	07/24/18	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	07/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	110		%	1	07/24/18	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	07/24/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	07/24/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	07/24/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Acenaphthene	ND	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Acenaphthylene	12000	1300	ug/Kg	5	07/25/18	KCA	SW8270D

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-32 (2-4 FT)

Phoenix I.D.: CA96215

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	2000	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Benz(a)anthracene	14000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Benzo(a)pyrene	13000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Benzo(b)fluoranthene	20000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Benzo(ghi)perylene	21000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Benzo(k)fluoranthene	17000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Chrysene	19000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Dibenz(a,h)anthracene	4100	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Fluoranthene	8600	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Fluorene	ND	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	21000	1000	ug/Kg	5	07/25/18	KCA	SW8270D
Naphthalene	1500	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Phenanthrene	2000	1300	ug/Kg	5	07/25/18	KCA	SW8270D
Pyrene	19000	1300	ug/Kg	5	07/25/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	82		%	5	07/25/18	KCA	30 - 130 %
% Nitrobenzene-d5	82		%	5	07/25/18	KCA	30 - 130 %
% Terphenyl-d14	73		%	5	07/25/18	KCA	30 - 130 %
Field Extraction	Completed				07/23/18		SW5035A

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

Comments:

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
August 13, 2018
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

August 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/23/18	15:25
Location Code:	TIGHE-DAS	Received by:	DL	07/23/18	17:18
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA96212
Phoenix ID: CA96216

Project ID: ROCKVILLE MGP
Client ID: SB-48 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Arsenic	17.5	0.79	mg/Kg	1	07/25/18	EK	SW6010C
Barium	49.7	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Beryllium	0.61	0.32	mg/Kg	1	07/25/18	EK	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Chromium	10.6	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Copper	50.1	0.40	mg/kg	1	07/25/18	EK	SW6010C
Mercury	0.17	0.13	mg/Kg	1	07/24/18	RS	SW7471B
Nickel	13.9	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Lead	48.1	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/25/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/25/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/25/18	EK	SW6010C
Vanadium	28.8	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Zinc	26.3	0.40	mg/Kg	1	07/25/18	EK	SW6010C
Percent Solid	89		%		07/23/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.98	0.56	mg/Kg	1	07/26/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/24/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/24/18	IG/VCK	SW3545A
Mercury Digestion	Completed				07/24/18	I/I	SW7471B
Total Metals Digest	Completed				07/24/18	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	07/25/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	55		%	1	07/25/18	JRB	50 - 150 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-48 (2-4 FT)

Phoenix I.D.: CA96216

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	6.0	ug/Kg	1	07/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
2-Chlorotoluene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
2-Hexanone	ND	50	ug/Kg	1	07/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
4-Chlorotoluene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	50	ug/Kg	1	07/24/18	JLI	SW8260C
Acetone	ND	500	ug/Kg	1	07/24/18	JLI	SW8260C
Acrylonitrile	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Benzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Bromobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Bromochloromethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Bromodichloromethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Bromoform	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Bromomethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon Disulfide	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Carbon tetrachloride	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Chlorobenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Chloroform	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Chloromethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromochloromethane	ND	6.0	ug/Kg	1	07/24/18	JLI	SW8260C
Dibromomethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Ethylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Isopropylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-48 (2-4 FT)

Phoenix I.D.: CA96216

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	60	ug/Kg	1	07/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	ug/Kg	1	07/24/18	JLI	SW8260C
Methylene chloride	ND	20	ug/Kg	1	07/24/18	JLI	SW8260C
Naphthalene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
n-Butylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
n-Propylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
o-Xylene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
p-Isopropyltoluene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
sec-Butylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Styrene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
tert-Butylbenzene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrachloroethene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	20	ug/Kg	1	07/24/18	JLI	SW8260C
Toluene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Total Xylenes	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	20	ug/Kg	1	07/24/18	JLI	SW8260C
Trichloroethene	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
Vinyl chloride	ND	10	ug/Kg	1	07/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	111		%	1	07/24/18	JLI	70 - 130 %
% Bromofluorobenzene	87		%	1	07/24/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/24/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/24/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Acenaphthylene	260	260	ug/Kg	1	07/25/18	KCA	SW8270D
Anthracene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Benz(a)anthracene	430	260	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(a)pyrene	640	260	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(b)fluoranthene	720	260	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(ghi)perylene	770	260	ug/Kg	1	07/25/18	KCA	SW8270D
Benzo(k)fluoranthene	670	260	ug/Kg	1	07/25/18	KCA	SW8270D
Chrysene	620	260	ug/Kg	1	07/25/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Fluoranthene	520	260	ug/Kg	1	07/25/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	840	260	ug/Kg	1	07/25/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	07/25/18	KCA	SW8270D
Pyrene	760	260	ug/Kg	1	07/25/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	07/25/18	KCA	30 - 130 %
% Nitrobenzene-d5	67		%	1	07/25/18	KCA	30 - 130 %

Ver 3

Project ID: ROCKVILLE MGP
Client ID: SB-48 (2-4 FT)

Phoenix I.D.: CA96216

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	72		%	1	07/25/18	KCA	30 - 130 %
Field Extraction	Completed				07/23/18		SW5035A

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

Comments:

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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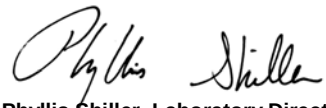


Phyllis Shiller, Laboratory Director
August 13, 2018
Reviewed and Released by: Sarah Bell, Project Manager

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

QA/QC Report

August 13, 2018

QA/QC Data

SDG I.D.: GCA96212

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 440090 (mg/kg), QC Sample No: CA96173 (CA96212, CA96214, CA96215, CA96216)													
Mercury - Soil	BRL	0.02	0.10	0.12	NC	103	97.7	5.3	121			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 442012 (mg/L), QC Sample No: CA96215 (CA96215)													
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	96.1			99.3			75 - 125	20
Barium	BRL	0.010	0.035	0.035	NC	104			104			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	101			103			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	99.9			102			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	99.3			99.1			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	102			103			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	99.3			99.4			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	98.7			99.2			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	99.1			100			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	98.9			99.8			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	100			101			75 - 125	20
Vanadium	BRL	0.010	<0.010	<0.010	NC	99.7			101			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20
QA/QC Batch 440165 (mg/kg), QC Sample No: CA96245 (CA96212, CA96214, CA96215, CA96216)													
ICP Metals - Soil													
Antimony	BRL	3.3	<3.7	<3.9	NC	77.1			94.3			75 - 125	30
Arsenic	BRL	0.67	5.29	5.17	2.30	99.7			92.6			75 - 125	30
Barium	BRL	0.33	42.4	43.4	2.30	97.0			107			75 - 125	30
Beryllium	BRL	0.27	0.34	0.35	NC	99.6			98.5			75 - 125	30
Cadmium	BRL	0.33	<0.37	<0.39	NC	107			97.1			75 - 125	30
Chromium	BRL	0.33	11.7	11.8	0.90	104			99.4			75 - 125	30
Copper	BRL	0.33	14.8	15.1	2.00	100			102			75 - 125	30
Lead	BRL	0.33	19.2	20.3	5.60	102			98.1			75 - 125	30
Nickel	BRL	0.33	9.69	10.8	10.8	104			97.4			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.6	NC	90.6			85.5			75 - 125	30
Silver	BRL	0.33	<0.37	<0.39	NC	95.5			96.9			75 - 125	30
Thallium	BRL	3.0	<3.4	<3.5	NC	104			95.1			75 - 125	30
Vanadium	BRL	0.33	18.5	17.4	6.10	102			97.6			75 - 125	30
Zinc	BRL	0.9	35.3	37.6	6.30	96.5			94.9			75 - 125	30
QA/QC Batch 442008 (mg/L), QC Sample No: CB05482 (CA96215)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	86.9			84.5			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%.													

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

August 13, 2018

QA/QC Data

SDG I.D.: GCA96212

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 440381 (mg/Kg), QC Sample No: CA96212 50X (CA96212, CA96214, CA96215, CA96216)														
Total Cyanide (SW9010C Distill.)	BRL	0.50	7.25	5.19	33.1	98.6			103			80 - 120	30	r
Comment:														
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils														

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

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

August 13, 2018

QA/QC Data

SDG I.D.: GCA96212

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 440138 (ug/kg), QC Sample No: CA95893 (CA96213, CA96214, CA96215, CA96216)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	109	109	0.0	103	106	2.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	98	100	2.0	93	94	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	98	0.0	92	94	2.2	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	97	98	1.0	96	97	1.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	99	100	1.0	82	82	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	101	103	2.0	73	79	7.9	70 - 130	30	
1,1-Dichloropropene	ND	5.0	101	100	1.0	102	103	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	101	100	1.0	99	105	5.9	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	92	91	1.1	87	87	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	100	100	0.0	100	106	5.8	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	99	99	0.0	98	99	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	112	115	2.6	99	105	5.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0	102	102	0.0	98	100	2.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	98	98	0.0	96	97	1.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	95	94	1.1	94	95	1.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	95	0.0	95	95	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	100	100	0.0	97	99	2.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	101	100	1.0	99	101	2.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	96	95	1.0	93	93	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	97	0.0	96	97	1.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	97	99	2.0	96	97	1.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	100	100	0.0	97	99	2.0	70 - 130	30	
2-Hexanone	ND	25	72	74	2.7	70	70	0.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	104	103	1.0	102	104	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	99	98	1.0	97	98	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	77	79	2.6	76	77	1.3	70 - 130	30	
Acetone	ND	10	71	74	4.1	58	55	5.3	70 - 130	30	m
Acrylonitrile	ND	5.0	88	91	3.4	78	77	1.3	70 - 130	30	
Benzene	ND	1.0	98	98	0.0	97	99	2.0	70 - 130	30	
Bromobenzene	ND	5.0	104	104	0.0	101	102	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	101	103	2.0	96	96	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	104	103	1.0	98	99	1.0	70 - 130	30	
Bromoform	ND	5.0	122	123	0.8	105	108	2.8	70 - 130	30	
Bromomethane	ND	5.0	106	112	5.5	99	90	9.5	70 - 130	30	
Carbon Disulfide	ND	5.0	118	119	0.8	80	87	8.4	70 - 130	30	
Carbon tetrachloride	ND	5.0	88	89	1.1	80	82	2.5	70 - 130	30	
Chlorobenzene	ND	5.0	100	100	0.0	98	100	2.0	70 - 130	30	
Chloroethane	ND	5.0	102	101	1.0	94	92	2.2	70 - 130	30	
Chloroform	ND	5.0	96	97	1.0	91	91	0.0	70 - 130	30	
Chloromethane	ND	5.0	84	86	2.4	79	81	2.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	100	102	2.0	93	97	4.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCA96212

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	100	100	0.0	98	100	2.0	70 - 130	30	
Dibromochloromethane	ND	3.0	119	120	0.8	106	109	2.8	70 - 130	30	
Dibromomethane	ND	5.0	98	99	1.0	95	97	2.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	114	116	1.7	107	110	2.8	70 - 130	30	
Ethylbenzene	ND	1.0	103	102	1.0	101	102	1.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	106	105	0.9	107	112	4.6	70 - 130	30	
Isopropylbenzene	ND	1.0	101	101	0.0	97	98	1.0	70 - 130	30	
m&p-Xylene	ND	2.0	103	103	0.0	101	103	2.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	66	70	5.9	66	65	1.5	70 - 130	30	l,m
Methyl t-butyl ether (MTBE)	ND	1.0	100	102	2.0	86	86	0.0	70 - 130	30	
Methylene chloride	ND	5.0	87	87	0.0	75	75	0.0	70 - 130	30	
Naphthalene	ND	5.0	99	100	1.0	95	100	5.1	70 - 130	30	
n-Butylbenzene	ND	1.0	99	99	0.0	98	100	2.0	70 - 130	30	
n-Propylbenzene	ND	1.0	100	100	0.0	97	99	2.0	70 - 130	30	
o-Xylene	ND	2.0	103	103	0.0	101	103	2.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	104	103	1.0	101	103	2.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	104	1.0	102	103	1.0	70 - 130	30	
Styrene	ND	5.0	102	103	1.0	101	102	1.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	102	100	2.0	98	99	1.0	70 - 130	30	
Tetrachloroethene	ND	5.0	107	107	0.0	109	111	1.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	77	80	3.8	76	75	1.3	70 - 130	30	
Toluene	ND	1.0	99	100	1.0	99	102	3.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	104	105	1.0	88	88	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	98	98	0.0	95	97	2.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	101	103	2.0	92	93	1.1	70 - 130	30	
Trichloroethene	ND	5.0	105	105	0.0	103	106	2.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	110	112	1.8	99	97	2.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	108	109	0.9	85	89	4.6	70 - 130	30	
Vinyl chloride	ND	5.0	97	97	0.0	86	87	1.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	99	99	0.0	99	98	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	99	99	0.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	101	%	104	104	0.0	101	101	0.0	70 - 130	30	
% Toluene-d8	102	%	99	98	1.0	99	99	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 440118 (ug/kg), QC Sample No: CA96397 (CA96212, CA96214, CA96215, CA96216)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	61	68	10.9	70	55	24.0	30 - 130	30	
Acenaphthene	ND	230	66	74	11.4	74	61	19.3	30 - 130	30	
Acenaphthylene	ND	230	63	72	13.3	70	58	18.8	30 - 130	30	
Anthracene	ND	230	69	81	16.0	77	67	13.9	30 - 130	30	
Benz(a)anthracene	ND	230	68	79	15.0	78	70	10.8	30 - 130	30	
Benzo(a)pyrene	ND	230	67	77	13.9	72	61	16.5	30 - 130	30	
Benzo(b)fluoranthene	ND	230	70	80	13.3	78	60	26.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	64	76	17.1	60	47	24.3	30 - 130	30	
Benzo(k)fluoranthene	ND	230	71	80	11.9	69	62	10.7	30 - 130	30	
Chrysene	ND	230	69	77	11.0	74	69	7.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	65	78	18.2	72	57	23.3	30 - 130	30	
Fluoranthene	ND	230	69	83	18.4	78	84	7.4	30 - 130	30	
Fluorene	ND	230	64	73	13.1	72	61	16.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	68	81	17.4	67	53	23.3	30 - 130	30	
Naphthalene	ND	230	63	70	10.5	73	58	22.9	30 - 130	30	

QA/QC Data

SDG I.D.: GCA96212

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Phenanthrene	ND	230	67	77	13.9	75	80	6.5	30 - 130	30
Pyrene	ND	230	68	84	21.1	77	82	6.3	30 - 130	30
% 2-Fluorobiphenyl	72	%	67	73	8.6	70	58	18.8	30 - 130	30
% Nitrobenzene-d5	77	%	69	76	9.7	81	68	17.4	30 - 130	30
% Terphenyl-d14	69	%	67	78	15.2	74	60	20.9	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 440120 (mg/Kg), QC Sample No: CA96848 (CA96212, CA96214, CA96215, CA96216)

TPH by GC (Extractable Products) - Soil

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Ext. Petroleum H.C. (C9-C36)	ND	50	100	95	5.1	98	99	1.0	60 - 120	30
% n-Pentacosane	71	%	74	74	0.0	67	66	1.5	50 - 150	30

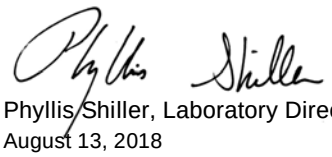
Comment:

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.

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

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

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



Phyllis Shiller, Laboratory Director
August 13, 2018

Monday, August 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA96212 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA96212	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1200	250	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	5700	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	5300	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1200	250	1000	1000	ug/Kg
CA96212	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5500	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5700	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6000	250	1000	1000	ug/Kg
CA96212	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	5300	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1200	250	1000	1000	ug/Kg
CA96212	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	6100	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	5200	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	6000	250	1000	1000	ug/Kg
CA96212	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	5500	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	5700	1000	1000	1000	ug/Kg
CA96212	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4900	1000	1000	1000	ug/Kg
CA96212	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	10.7	0.66	10	10	mg/Kg
CA96212	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	10.7	0.66	10	10	mg/Kg
CA96214	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	15.9	0.86	10	10	mg/Kg
CA96214	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	15.9	0.86	10	10	mg/Kg
CA96215	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	21000	1000	7800	7800	ug/Kg
CA96215	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	4100	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	14000	1000	7800	7800	ug/Kg
CA96215	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	13000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	20000	1000	7800	7800	ug/Kg
CA96215	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	21000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4100	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	21000	1000	8400	8400	ug/Kg
CA96215	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	13000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	20000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	1000	8400	8400	ug/Kg
CA96215	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	19000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	21000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4100	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	21000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	20000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	13000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA96215	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	17000	1000	1000	1000	ug/Kg
CA96215	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	2900	270	2500	2500	mg/Kg

Monday, August 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA96212 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA96215	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	2900	270	500	500	mg/Kg
CA96215	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	2900	270	2500	2500	mg/Kg
CA96215	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	10.2	0.71	10	10	mg/Kg
CA96215	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	10.2	0.71	10	10	mg/Kg
CA96216	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	17.5	0.79	10	10	mg/Kg
CA96216	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	17.5	0.79	10	10	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

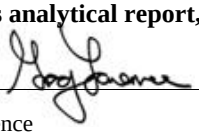
Laboratory Sample ID(s): CA96212-CA96216 ***Sampling Date(s):*** 7/23/2018

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, August 13, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA96212

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.

Cyanide Narration

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

Instrument:

LACHAT 07/26/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/26/18

CA96212, CA96214, CA96215, CA96216

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 440381 (CA96212)

CA96212, CA96214, CA96215, CA96216

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

ETPH Narration

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

Instrument:

AU-FID1 07/24/18-1 Jeff Bucko, Chemist 07/24/18

CA96212, CA96215

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 07/24/18-1 Jeff Bucko, Chemist 07/24/18

CA96214, CA96216

The initial calibration (ETPH620I) 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 440120 (CA96848)

CA96212, CA96214, CA96215, CA96216

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

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RCP Certification Report

August 13, 2018

SDG I.D.: GCA96212

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 07/24/18 09:22 Rick Schweitzer, Chemist 07/24/18

CA96212, CA96214, CA96215, CA96216

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 08/07/18 08:24 Rick Schweitzer, Chemist 08/07/18

CA96215

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 440090 (CA96173)

CA96212, CA96214, CA96215, CA96216

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

Batch 442008 (CB05482)

CA96215

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%.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

August 13, 2018

SDG I.D.: GCA96212

ICP Metals Narration

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

Instrument:

ARCOS 07/24/18 08:32 Emily Kolominskaya, Chemist 07/24/18

CA96212, CA96214, CA96215, CA96216

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 07/25/18 09:33 Emily Kolominskaya, Chemist 07/25/18

CA96212, CA96214, CA96215, CA96216

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

BLUE 08/07/18 13:40 Emily Kolominskaya, Chemist 08/07/18

CA96215

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 440165 (CA96245)

CA96212, CA96214, CA96215, CA96216

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

QC (Site Specific):

Batch 442012 (CA96215)

CA96215

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.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCA96212

SVOA Narration

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

Instrument:

CHEM06 07/24/18-1 Matt Richard, Chemist 07/24/18

CA96212, CA96214, CA96215, CA96216

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_0627):
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 (CHEM06/0724_02-BN_0627):
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 0.896 (0.9)
The following compounds did not meet minimum response factors: None.

CHEM06 07/25/18-1 Harry Mullin, Chemist 07/25/18

CA96212

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_0627):
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 (CHEM06/0725_02-BN_0627):
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 440118 (CA96397)

CA96212, CA96214, CA96215, CA96216

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

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RCP Certification Report

August 13, 2018

SDG I.D.: GCA96212

SVOA Narration

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 440138 (Samples: CA96213, CA96214, CA96215, CA96216): -----

The LCS and Batch MS/MSD recovery is below the lower range but within the method criteria. The LCSD is acceptable. A slight low bias is possible. (Methyl ethyl ketone)

Instrument:

CHEM03 07/23/18-2 Jane Li, Chemist 07/23/18

CA96213, CA96214, CA96215, CA96216

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

Continuing Calibration Verification (CHEM03/0723L05-VT-L0714):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Methyl Ethyl Ketone 32%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 440138 (CA95893)

CA96213, CA96214, CA96215, CA96216

All LCS recoveries were within 70 - 130 with the following exceptions: Methyl ethyl ketone(66%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples in this delivery group were received at 3.3°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

CHAIN OF CUSTODY RECORD

Temp 3.8 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@tripleband.com

Customer: Triple + Band
Address: 213 Court St Suite 1100
Middletown CT

Project: Rectimme MGP
Report to: Lynn Willey
Invoice to: Triple + Band

Project P.O: 14-0745-413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/23/14

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	PAH	ETPH	TAL Metals	Total Cyanide	Soil VOA Vials [x] methanol [x] 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
96212	SB-51 (2-4 ft)	S	7/23/14	9:15		x	x	x	x	3	1								
96213	SB-51 (10-11 ft)			9:30	x					3	1								
96214	SB-50 (2-4 ft)			10:30	x	x	x	x	x	3	1								
96215	SB-52 (2-4 ft)			14:05	x	x	x	x	x	3	1								
96216	SB-44 (2-4 ft)			15:25	x	x	x	x	x	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/23/14	17:18

Comments, Special Requirements or Regulations:
ORS Required
Quote: TIO25173*

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[x] 3 Days*
[ ] 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
[x] I/C DEC
[ ] Other

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

Data Format
[x] Excel
[x] PDF
[ ] GIS/Key
[ ] EQuIS
[x] Other Groundwater

Data Package
[ ] 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 22
Page 454 of 1282

PHOENIX
Environmental Laboratories, Inc.

Thursday, August 09, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA98174 - CA98183, CA98185

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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Analysis Report

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/24/18	9:40
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98174

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	48.5	0.89	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	59.1	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.55	0.36	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.52	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	14.4	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	34.9	0.9	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.16	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	11.5	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	64.7	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 4.4	4.4	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	07/27/18	CPP	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Arsenic	0.011	0.004	mg/L	1	07/27/18	CPP	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/27/18	CPP	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/26/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Lead	0.011	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/27/18	CPP	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Zinc	0.018	0.010	mg/L	1	07/27/18	CPP	SW6010C
Thallium	< 4.0	4.0	mg/Kg	1	07/27/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)

Phoenix I.D.: CA98174

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/26/18	IQ/I	SW3010A
Vanadium	27.9	0.44	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	176	0.9	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	77		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.65	0.65	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction for SVOA	Completed				07/26/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/26/18	IQ/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/25/18	I	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	320	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	119		%	5	07/27/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
2-Hexanone	ND	37	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	37	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	370	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromochloromethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)

Phoenix I.D.: CA98174

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon Disulfide	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	4.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
m&p-Xylene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	44	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
o-Xylene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Styrene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrachloroethene	7.3	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	1	07/27/18	JLI	SW8260C
Trichloroethene	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	7.4	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	87		%	1	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	07/27/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)

Phoenix I.D.: CA98174

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,4-Dinitrophenol	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
2-Nitroaniline	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
3-Nitroaniline	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
4-Chloroaniline	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
4-Nitroaniline	ND	680	ug/Kg	1	07/27/18	KCA	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	760	300	ug/Kg	1	07/27/18	KCA	SW8270D
Acetophenone	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Aniline	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Anthracene	540	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	2900	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benzidine	ND	200	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	3000	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	2600	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	1400	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	2500	300	ug/Kg	1	07/27/18	KCA	SW8270D
Benzoic acid	ND	850	ug/Kg	1	07/27/18	KCA	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Carbazole	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	2900	300	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	500	300	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenzofuran	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)

Phoenix I.D.: CA98174

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Di-n-butylphthalate	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	3700	300	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Hexachlorobutadiene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	1700	300	ug/Kg	1	07/27/18	KCA	SW8270D
Isophorone	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Nitrobenzene	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/27/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/27/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Pentachloronitrobenzene	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Pentachlorophenol	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	1400	300	ug/Kg	1	07/27/18	KCA	SW8270D
Phenol	ND	300	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	4000	300	ug/Kg	1	07/27/18	KCA	SW8270D
Pyridine	ND	430	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	57		%	1	07/27/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	56		%	1	07/27/18	KCA	30 - 130 %
% 2-Fluorophenol	39		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	69		%	1	07/27/18	KCA	30 - 130 %
% Phenol-d5	56		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/27/18	KCA	30 - 130 %
Field Extraction	Completed				07/24/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-43 (0.5-2FT)
Phoenix I.D.: CA98174

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/24/18	10:50
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98175

Project ID: ROCKVILLE MGP
Client ID: SB-43 (5-7FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	6.35	0.70	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	65.0	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.45	0.28	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	15.2	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	21.0	0.7	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.10	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	11.1	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	49.0	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/27/18	CPP	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	25.5	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	75.9	0.7	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	91		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.55	0.55	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	630	270	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	07/27/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-43 (5-7FT)

Phoenix I.D.: CA98175

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polynuclear Aromatic HC							
2-Methylnaphthalene	430	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	280	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	3100	250	ug/Kg	1	07/27/18	KCA	SW8270D
Anthracene	10000	1300	ug/Kg	5	07/30/18	KCA	SW8270D
Benz(a)anthracene	35000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Benzo(a)pyrene	24000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Benzo(b)fluoranthene	23000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Benzo(ghi)perylene	12000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Benzo(k)fluoranthene	18000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Chrysene	33000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Dibenz(a,h)anthracene	4900	250	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	33000	1300	ug/Kg	5	07/30/18	KCA	SW8270D
Fluorene	1900	250	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	16000	1000	ug/Kg	5	07/30/18	KCA	SW8270D
Naphthalene	870	250	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	19000	1300	ug/Kg	5	07/30/18	KCA	SW8270D
Pyrene	30000	1300	ug/Kg	5	07/30/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	69		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	73		%	1	07/27/18	KCA	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:

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.

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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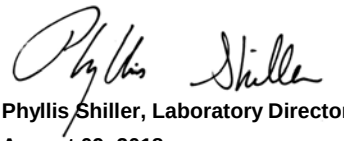

Phyllis Shiller, Laboratory Director
August 09, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	9:20
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98176

Project ID: ROCKVILLE MGP
Client ID: SB-58 (0.5-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	6.02	0.65	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	47.9	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.33	0.26	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.70	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	24.8	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	35.8	0.6	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.24	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	9.58	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	147	3.2	mg/Kg	10	07/31/18	EK	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/27/18	CPP	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Arsenic	0.008	0.004	mg/L	1	08/08/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/08/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Copper	0.012	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/07/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Lead	0.012	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/08/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Vanadium	0.014	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Zinc	0.014	0.010	mg/L	1	08/08/18	EK	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	07/27/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-58 (0.5-2FT)

Phoenix I.D.: CA98176

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/07/18	Q/I/Q	SW3010A
Vanadium	33.7	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	104	0.6	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	94		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				08/07/18	Q/Q	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/06/18	Q	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	260	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	108		%	5	07/27/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
Bromochloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-58 (0.5-2FT)

Phoenix I.D.: CA98176

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon Disulfide	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
m&p-Xylene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
o-Xylene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
Styrene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	390	ug/Kg	50	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	770	ug/Kg	50	07/27/18	JLI	SW8260C
Trichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	50	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	330	250	ug/Kg	1	07/27/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-58 (0.5-2FT)

Phoenix I.D.: CA98176

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	320	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	1400	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	2500	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	2300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	1300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	1800	250	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	1600	250	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	360	250	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	2800	250	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	1700	250	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	1300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	2600	250	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	61		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	59		%	1	07/27/18	KCA	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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.

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	10:05
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98177

Project ID: ROCKVILLE MGP
Client ID: SB-57 (2-4FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	1.29	0.64	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	36.1	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.34	0.26	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	9.84	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	11.0	0.6	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	6.04	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	9.47	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/27/18	CPP	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	23.8	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	28.1	0.6	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	92		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.49	0.49	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				08/06/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	07/27/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	07/27/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-57 (2-4FT)

Phoenix I.D.: CA98177

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	94		%	10	08/08/18	AW	30 - 150 %
% TCMX	91		%	10	08/08/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Bromochloromethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Bromodichloromethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-57 (2-4FT)

Phoenix I.D.: CA98177

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	3.5	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
m&p-Xylene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	35	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
o-Xylene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Styrene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/27/18	JLI	SW8260C
Trichloroethene	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	5.9	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	99		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-57 (2-4FT)

Phoenix I.D.: CA98177

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Chrysene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Fluorene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Pyrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	07/30/18	HM	30 - 130 %
% Nitrobenzene-d5	64		%	1	07/30/18	HM	30 - 130 %
% Terphenyl-d14	71		%	1	07/30/18	HM	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	10:20
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98178

Project ID: ROCKVILLE MGP
Client ID: SB-57 (8-10FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	3.06	0.86	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	56.2	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.48	0.34	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	16.8	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	11.8	0.9	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.08	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	8.71	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	8.03	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 4.3	4.3	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	07/27/18	CPP	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Arsenic	0.005	0.004	mg/L	1	07/27/18	EK	SW6010C
SPLP Barium	0.078	0.010	mg/L	1	07/27/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/27/18	CPP	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Chromium	0.022	0.010	mg/L	1	07/27/18	EK	SW6010C
SPLP Copper	0.019	0.010	mg/L	1	07/27/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/27/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Lead	0.056	0.010	mg/L	1	07/27/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/27/18	CPP	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Vanadium	0.023	0.010	mg/L	1	07/27/18	EK	SW6010C
SPLP Zinc	0.072	0.010	mg/L	1	07/27/18	EK	SW6010C
Thallium	< 3.9	3.9	mg/Kg	1	07/27/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-57 (8-10FT)

Phoenix I.D.: CA98178

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/27/18	I/Q/Q	SW3010A
Vanadium	39.6	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	50.5	0.9	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	82		%		07/26/18	q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/27/18	I/Q/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/26/18	I	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	60	mg/Kg	1	07/27/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	07/27/18	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Anthracene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	ND	400	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	480	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	ND	280	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	65		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	74		%	1	07/27/18	KCA	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: SB-57 (8-10FT)

Phoenix I.D.: CA98178

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	10:30
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98179

Project ID: ROCKVILLE MGP
Client ID: SB-56 (0.5-2FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	4.38	0.70	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	46.4	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.39	0.28	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.40	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	15.4	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	27.2	0.7	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.04	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	10.3	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	66.4	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	07/27/18	CPP	SW6010C
Thallium	< 3.1	3.1	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	26.2	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	78.1	0.7	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	94		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	260	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	119		%	5	07/27/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-56 (0.5-2FT)

Phoenix I.D.: CA98179

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromochloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromodichloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon Disulfide	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-56 (0.5-2FT)

Phoenix I.D.: CA98179

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
o-Xylene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Styrene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Trichloroethene	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	6.3	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	240	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	240	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	990	240	ug/Kg	1	07/27/18	KCA	SW8270D
Anthracene	900	240	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	3700	240	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	3400	240	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	3100	240	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	2100	240	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	2800	240	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	3800	240	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	470	240	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	6800	240	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	280	240	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	2500	240	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	240	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	3000	240	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	6700	240	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	57		%	1	07/27/18	KCA	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-56 (0.5-2FT)

Phoenix I.D.: CA98179

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	69		%	1	07/27/18	KCA	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	10:50
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98180

Project ID: ROCKVILLE MGP
Client ID: SB-55 (2-4FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	2.84	0.65	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	35.3	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.32	0.26	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	18.5	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	33.0	0.6	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.04	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	9.01	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	88.9	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.2	3.2	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	07/27/18	CPP	SW6010C
Thallium	< 2.9	2.9	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	31.8	0.32	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	62.8	0.6	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	94		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				08/06/18	AA/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	330	260	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Interference		%	5	07/27/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-55 (2-4FT)

Phoenix I.D.: CA98180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	08/08/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	94		%	10	08/08/18	AW	30 - 150 %
% TCMX	97		%	10	08/08/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
2-Hexanone	ND	20	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	20	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	200	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Bromochloromethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Bromodichloromethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-55 (2-4FT)

Phoenix I.D.: CA98180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	2.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
m&p-Xylene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	24	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.1	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	8.1	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
o-Xylene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Styrene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.1	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	8.1	ug/Kg	1	07/27/18	JLI	SW8260C
Trichloroethene	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	4.0	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthene	720	240	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthylene	1100	240	ug/Kg	1	07/27/18	HM	SW8270D
Anthracene	3800	1200	ug/Kg	5	07/30/18	HM	SW8270D
Benz(a)anthracene	14000	1000	ug/Kg	5	07/30/18	HM	SW8270D
Benzo(a)pyrene	11000	1000	ug/Kg	5	07/30/18	HM	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-55 (2-4FT)

Phoenix I.D.: CA98180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(b)fluoranthene	9900	1000	ug/Kg	5	07/30/18	HM	SW8270D
Benzo(ghi)perylene	6700	1000	ug/Kg	5	07/30/18	HM	SW8270D
Benzo(k)fluoranthene	9600	1000	ug/Kg	5	07/30/18	HM	SW8270D
Chrysene	14000	1000	ug/Kg	5	07/30/18	HM	SW8270D
Dibenz(a,h)anthracene	1700	1000	ug/Kg	5	07/30/18	HM	SW8270D
Fluoranthene	19000	1200	ug/Kg	5	07/30/18	HM	SW8270D
Fluorene	1300	1200	ug/Kg	5	07/30/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	7700	1000	ug/Kg	5	07/30/18	HM	SW8270D
Naphthalene	360	240	ug/Kg	1	07/27/18	HM	SW8270D
Phenanthrene	14000	1200	ug/Kg	5	07/30/18	HM	SW8270D
Pyrene	18000	1200	ug/Kg	5	07/30/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	07/27/18	HM	30 - 130 %
% Nitrobenzene-d5	59		%	1	07/27/18	HM	30 - 130 %
% Terphenyl-d14	72		%	1	07/27/18	HM	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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.

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
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	10:55
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98181

Project ID: ROCKVILLE MGP
Client ID: SB-55 (8-9FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	2.08	0.87	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	70.7	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.55	0.35	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	16.9	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	13.0	0.9	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	9.65	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	36.8	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 4.3	4.3	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	07/27/18	CPP	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	07/27/18	CPP	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	07/27/18	CPP	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	07/27/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	07/27/18	CPP	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	07/27/18	CPP	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	07/27/18	CPP	SW6010C
Thallium	< 3.9	3.9	mg/Kg	1	07/27/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-55 (8-9FT)
Phoenix I.D.: CA98181

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				07/27/18	I/Q/Q	SW3010A
Vanadium	34.3	0.43	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	62.2	0.9	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	81		%		07/26/18	q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				07/27/18	I/Q/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				07/26/18	I	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	07/26/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/26/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	07/26/18	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	810	290	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	500	290	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	590	290	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	520	290	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	770	290	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	67		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/27/18	KCA	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: SB-55 (8-9FT)
Phoenix I.D.: CA98181

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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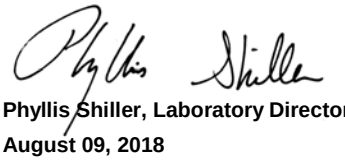

Phyllis Shiller, Laboratory Director
August 09, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	11:10
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98182

Project ID: ROCKVILLE MGP
Client ID: SB-54 (2-4FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	4.04	0.78	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	77.5	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.62	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	32.8	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	41.5	0.8	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	0.17	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	6.56	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	125	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	07/27/18	CPP	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/08/18	EK	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/08/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/07/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Lead	0.027	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/08/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Zinc	0.014	0.010	mg/L	1	08/08/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/27/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-54 (2-4FT)

Phoenix I.D.: CA98182

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/07/18	Q/I/Q	SW3010A
Vanadium	19.9	0.39	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	83.8	0.8	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	92		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				08/07/18	Q/I/Q	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/06/18	Q	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	140	54	mg/Kg	1	07/27/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	07/27/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromochloromethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-54 (2-4FT)

Phoenix I.D.: CA98182

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon Disulfide	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
m&p-Xylene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
o-Xylene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Styrene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	07/27/18	JLI	SW8260C
Trichloroethene	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	6.4	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	103		%	1	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Acenaphthylene	330	250	ug/Kg	1	07/27/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-54 (2-4FT)

Phoenix I.D.: CA98182

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	600	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benz(a)anthracene	2300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(a)pyrene	2300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	2200	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	1300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	1700	250	ug/Kg	1	07/27/18	KCA	SW8270D
Chrysene	2300	250	ug/Kg	1	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	330	250	ug/Kg	1	07/27/18	KCA	SW8270D
Fluoranthene	3900	250	ug/Kg	1	07/27/18	KCA	SW8270D
Fluorene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	1600	250	ug/Kg	1	07/27/18	KCA	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/27/18	KCA	SW8270D
Phenanthrene	2000	250	ug/Kg	1	07/27/18	KCA	SW8270D
Pyrene	3700	250	ug/Kg	1	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	69		%	1	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	76		%	1	07/27/18	KCA	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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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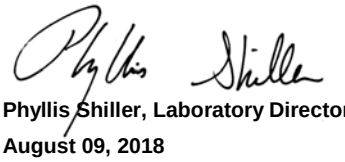

Phyllis Shiller, Laboratory Director
August 09, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	13:30
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98183

Project ID: ROCKVILLE MGP
Client ID: SB-49 (3-5FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	147	0.76	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	80.3	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.86	0.30	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.51	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	7.30	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	42.6	0.8	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	14.1	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	10.4	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	15.5	1.5	mg/Kg	1	07/27/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	19.9	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	27.3	0.8	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	94		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.72	0.53	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	07/26/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/26/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	89		%	1	07/26/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-49 (3-5FT)

Phoenix I.D.: CA98183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/27/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloroethene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,1-Dichloropropene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,2-Dichloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,2-Dichloropropane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
1,3-Dichloropropane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
2,2-Dichloropropane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
2-Chlorotoluene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
2-Hexanone	ND	54	ug/Kg	1	07/27/18	JLI	SW8260C
2-Isopropyltoluene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
4-Chlorotoluene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	54	ug/Kg	1	07/27/18	JLI	SW8260C
Acetone	ND	540	ug/Kg	1	07/27/18	JLI	SW8260C
Acrylonitrile	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Benzene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Bromobenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
Bromochloromethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Bromodichloromethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Bromoform	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Bromomethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon Disulfide	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Carbon tetrachloride	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Chlorobenzene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Chloroform	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Chloromethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromochloromethane	ND	6.5	ug/Kg	1	07/27/18	JLI	SW8260C
Dibromomethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Dichlorodifluoromethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Ethylbenzene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Hexachlorobutadiene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
Isopropylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-49 (3-5FT)

Phoenix I.D.: CA98183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	65	ug/Kg	1	07/27/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	22	ug/Kg	1	07/27/18	JLI	SW8260C
Methylene chloride	ND	22	ug/Kg	1	07/27/18	JLI	SW8260C
Naphthalene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
n-Butylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
n-Propylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
o-Xylene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
p-Isopropyltoluene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
sec-Butylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
Styrene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
tert-Butylbenzene	ND	380	ug/Kg	50	07/27/18	JLI	SW8260C
Tetrachloroethene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	22	ug/Kg	1	07/27/18	JLI	SW8260C
Toluene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Total Xylenes	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	770	ug/Kg	50	07/27/18	JLI	SW8260C
Trichloroethene	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorofluoromethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
Vinyl chloride	ND	11	ug/Kg	1	07/27/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	07/27/18	JLI	70 - 130 %
% Bromofluorobenzene	99		%	50	07/27/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/27/18	JLI	70 - 130 %
% Toluene-d8	96		%	1	07/27/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Chrysene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Fluoranthene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Fluorene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/30/18	HM	SW8270D
Pyrene	330	250	ug/Kg	1	07/30/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	07/30/18	HM	30 - 130 %
% Nitrobenzene-d5	65		%	1	07/30/18	HM	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-49 (3-5FT)

Phoenix I.D.: CA98183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	69		%	1	07/30/18	HM	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
August 09, 2018
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

August 09, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/25/18	14:50
Location Code:	TIGHE-DAS	Received by:	CP	07/25/18	16:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98174
Phoenix ID: CA98185

Project ID: ROCKVILLE MGP
Client ID: SB-52 (16-18FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.5	2.5	mg/Kg	1	07/27/18	CPP	SW6010C
Arsenic	1.53	0.76	mg/Kg	1	07/27/18	CPP	SW6010C
Barium	36.9	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Beryllium	0.81	0.30	mg/Kg	1	07/27/18	CPP	SW6010C
Cadmium	0.45	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Chromium	26.5	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Copper	15.9	0.8	mg/kg	1	07/27/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	07/26/18	RS	SW7471B
Nickel	20.6	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Lead	8.75	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	07/27/18	CPP	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	07/27/18	CPP	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	07/27/18	CPP	SW6010C
Vanadium	35.1	0.38	mg/Kg	1	07/27/18	CPP	SW6010C
Zinc	73.1	0.8	mg/Kg	1	07/27/18	CPP	SW6010C
Percent Solid	89		%		07/26/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	34.3	0.51	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	VS/IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/26/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/26/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4200	280	mg/Kg	5	07/27/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	07/27/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	123		%	5	07/27/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-52 (16-18FT)

Phoenix I.D.: CA98185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	100	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	140	ug/Kg	100	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	3400	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	140	ug/Kg	100	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	68	ug/Kg	100	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	100	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,3,5-Trimethylbenzene	1600	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
2-Hexanone	ND	3400	ug/Kg	100	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	3400	ug/Kg	100	07/28/18	JLI	SW8260C
Acetone	ND	34000	ug/Kg	100	07/28/18	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	100	07/28/18	JLI	SW8260C
Benzene	ND	200	ug/Kg	100	07/28/18	JLI	SW8260C
Bromobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Bromochloromethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	210	ug/Kg	100	07/28/18	JLI	SW8260C
Bromoform	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Bromomethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Chlorobenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Chloroethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Chloroform	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Chloromethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	100	ug/Kg	100	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	140	ug/Kg	100	07/28/18	JLI	SW8260C
Dibromomethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Ethylbenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-52 (16-18FT)

Phoenix I.D.: CA98185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	4100	ug/Kg	100	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	1400	ug/Kg	100	07/28/18	JLI	SW8260C
Methylene chloride	ND	1000	ug/Kg	100	07/28/18	JLI	SW8260C
Naphthalene	12000	680	ug/Kg	100	07/28/18	JLI	SW8260C
n-Butylbenzene	830	680	ug/Kg	100	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
o-Xylene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
p-Isopropyltoluene	1800	680	ug/Kg	100	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Styrene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	800	ug/Kg	100	07/28/18	JLI	SW8260C
Toluene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Total Xylenes	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	100	ug/Kg	100	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	1400	ug/Kg	100	07/28/18	JLI	SW8260C
Trichloroethene	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	680	ug/Kg	100	07/28/18	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	100	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	100	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	103		%	100	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	100	07/28/18	JLI	70 - 130 %
% Toluene-d8	99		%	100	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	45000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Acenaphthene	31000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Acenaphthylene	9900	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Anthracene	24000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Benz(a)anthracene	12000	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(a)pyrene	7900	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	3900	1300	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	3700	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	6600	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Chrysene	14000	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Fluoranthene	17000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Fluorene	26000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	3500	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Naphthalene	4800	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Phenanthrene	53000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
Pyrene	29000	2600	ug/Kg	10	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	10	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	66		%	10	07/27/18	KCA	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-52 (16-18FT)

Phoenix I.D.: CA98185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	70		%	10	07/27/18	KCA	30 - 130 %
Field Extraction	Completed				07/25/18		SW5035A

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

Comments:

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.

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
August 09, 2018
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

August 09, 2018

QA/QC Data

SDG I.D.: GCA98174

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 440684 (mg/L), QC Sample No: CA96173 (CA98178, CA98181)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	94.0			110			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	91.4			105			75 - 125	20
Barium	BRL	0.010	0.025	0.026	NC	104			98.1			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	98.6			97.1			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	90.5			105			75 - 125	20
Chromium	BRL	0.010	0.003	0.003	NC	90.9			105			75 - 125	20
Copper	BRL	0.010	0.006	0.006	NC	100			94.4			75 - 125	20
Lead	BRL	0.010	0.011	0.011	NC	91.4			106			75 - 125	20
Nickel	BRL	0.010	0.005	0.003	NC	92.4			107			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	96.6			110			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	93.8			92.0			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	91.4			106			75 - 125	20
Vanadium	BRL	0.010	0.005	0.006	NC	98.2			94.3			75 - 125	20
Zinc	BRL	0.010	0.024	0.024	NC	90.7			105			75 - 125	20
QA/QC Batch 440639 (mg/L), QC Sample No: CA96173 (CA98178, CA98181)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	99.0			87.6			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 442012 (mg/L), QC Sample No: CA96215 (CA98176, CA98182)													
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	96.1			99.3			75 - 125	20
Barium	BRL	0.010	0.035	0.035	NC	104			104			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	101			103			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	99.9			102			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	99.3			99.1			75 - 125	20
Copper	BRL	0.010	<0.010	<0.010	NC	102			103			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	99.3			99.4			75 - 125	20
Nickel	BRL	0.010	<0.010	<0.010	NC	98.7			99.2			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	99.1			100			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	98.9			99.8			75 - 125	20
Thallium	BRL	0.005	<0.005	<0.005	NC	100			101			75 - 125	20
Vanadium	BRL	0.010	<0.010	<0.010	NC	99.7			101			75 - 125	20
Zinc	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20
QA/QC Batch 440453 (mg/L), QC Sample No: CA97658 (CA98174)													
ICP Metals - SPLP Extraction													
Antimony	BRL	0.005	<0.005	<0.005	NC	99.0			94.2			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.4			92.9			75 - 125	20
Barium	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.5			99.6			75 - 125	20

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Cadmium	BRL	0.005	<0.005	<0.005	NC	101			93.9			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	98.3			92.3			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	100			99.9			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	99.5			93.2			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	101			94.4			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	98.9			95.1			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	95.4			96.8			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	97.9			92.7			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	97.6			98.3			75 - 125	20	
Zinc	BRL	0.010	<0.010	0.010	NC	101			101			75 - 125	20	
QA/QC Batch 440447 (mg/L), QC Sample No: CA97790 (CA98174)														
Mercury - Water	BRL	0.0002	<0.0002	0.0002	NC	87.9			77.0			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 440468 (mg/kg), QC Sample No: CA98143 (CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	81.8	72.5	12.1	35.5			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 440564 (mg/kg), QC Sample No: CA98176 (CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185)														
ICP Metals - Soil														
Antimony	BRL	3.4	<3.2	<3.7	NC	98.0			87.8			75 - 125	30	
Arsenic	BRL	0.68	6.02	5.19	14.8	101			86.2			75 - 125	30	
Barium	BRL	0.34	47.9	50.3	4.90	100			102			75 - 125	30	
Beryllium	BRL	0.27	0.33	0.34	NC	98.6			90.4			75 - 125	30	
Cadmium	BRL	0.34	0.70	0.75	NC	94.1			86.6			75 - 125	30	
Chromium	BRL	0.34	24.8	25.6	3.20	105			92.0			75 - 125	30	
Copper	BRL	0.68	35.8	31.8	11.8	96.7			92.9			75 - 125	30	
Lead	BRL	0.34	147	126	15.4	96.6			81.3			75 - 125	30	
Nickel	BRL	0.34	9.58	8.29	14.4	95.6			88.7			75 - 125	30	
Selenium	BRL	1.4	<1.3	<1.5	NC	112			77.6			75 - 125	30	
Silver	BRL	0.34	<2.5	<0.37	NC	101			92.2			75 - 125	30	
Thallium	BRL	3.0	<2.9	<3.4	NC	96.9			85.0			75 - 125	30	
Vanadium	BRL	0.34	33.7	26.0	25.8	109			89.6			75 - 125	30	
Zinc	BRL	0.68	104	117	11.8	98.3			103			75 - 125	30	
QA/QC Batch 442009 (mg/L), QC Sample No: CA98182 (CA98182)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	80.9			82.4			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 442008 (mg/L), QC Sample No: CB05482 (CA98176)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	86.9			84.5			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%.														

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

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

August 09, 2018

QA/QC Data

SDG I.D.: GCA98174

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 440581 (mg/Kg), QC Sample No: CA98176 50X (CA98174, CA98175, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183, CA98185)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	87.8			100			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

August 09, 2018

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 440478 (mg/Kg), QC Sample No: CA97861 (CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	95	97	2.1	104	90	14.4	60 - 120	30	
% n-Pentacosane	74	%	82	87	5.9	76	70	8.2	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 440480 (ug/kg), QC Sample No: CA98063 (CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	230	64	68	6.1	52	53	1.9	30 - 130	30	
Acenaphthene	ND	230	66	71	7.3	59	57	3.4	30 - 130	30	
Acenaphthylene	ND	230	65	67	3.0	57	56	1.8	30 - 130	30	
Anthracene	ND	230	70	73	4.2	60	58	3.4	30 - 130	30	
Benz(a)anthracene	ND	230	72	74	2.7	58	55	5.3	30 - 130	30	
Benzo(a)pyrene	ND	230	69	70	1.4	52	52	0.0	30 - 130	30	
Benzo(b)fluoranthene	ND	230	75	76	1.3	56	54	3.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	67	69	2.9	27	41	41.2	30 - 130	30	m,r
Benzo(k)fluoranthene	ND	230	71	72	1.4	57	55	3.6	30 - 130	30	
Chrysene	ND	230	70	75	6.9	57	53	7.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	70	72	2.8	35	48	31.3	30 - 130	30	r
Fluoranthene	ND	230	70	73	4.2	59	55	7.0	30 - 130	30	
Fluorene	ND	230	57	70	20.5	60	58	3.4	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	74	75	1.3	31	44	34.7	30 - 130	30	r
Naphthalene	ND	230	65	64	1.6	55	57	3.6	30 - 130	30	
Phenanthrene	ND	230	69	70	1.4	59	55	7.0	30 - 130	30	
Pyrene	ND	230	70	74	5.6	61	59	3.3	30 - 130	30	
% 2-Fluorobiphenyl	70	%	72	70	2.8	57	57	0.0	30 - 130	30	
% Nitrobenzene-d5	70	%	66	68	3.0	56	54	3.6	30 - 130	30	
% Terphenyl-d14	64	%	68	73	7.1	58	60	3.4	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 440692 (ug/kg), QC Sample No: CA98497 (CA98174, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	105	107	1.9	102	104	1.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	104	103	1.0	99	99	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	106	104	1.9	96	99	3.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	97	98	1.0	96	97	1.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	102	102	0.0	101	100	1.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	103	102	1.0	83	94	12.4	70 - 130	30	
1,1-Dichloropropene	ND	5.0	102	102	0.0	101	100	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichlorobenzene	ND	5.0	102	101	1.0	95	102	7.1	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	101	101	0.0	95	97	2.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	103	100	3.0	96	103	7.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	101	100	1.0	96	99	3.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	115	113	1.8	95	100	5.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	102	102	0.0	98	100	2.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	99	99	0.0	96	99	3.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	98	99	1.0	96	96	0.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	98	99	1.0	98	98	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	103	102	1.0	98	101	3.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	102	100	2.0	96	101	5.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	99	99	0.0	96	96	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	100	99	1.0	95	99	4.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	112	109	2.7	106	107	0.9	70 - 130	30	
2-Chlorotoluene	ND	5.0	100	100	0.0	95	98	3.1	70 - 130	30	
2-Hexanone	ND	25	95	93	2.1	81	83	2.4	70 - 130	30	
2-Isopropyltoluene	ND	5.0	106	105	0.9	102	104	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	101	100	1.0	96	99	3.1	70 - 130	30	
4-Methyl-2-pentanone	ND	25	97	94	3.1	88	89	1.1	70 - 130	30	
Acetone	ND	10	89	87	2.3	66	67	1.5	70 - 130	30	m
Acrylonitrile	ND	5.0	106	104	1.9	98	98	0.0	70 - 130	30	
Benzene	ND	1.0	99	99	0.0	98	97	1.0	70 - 130	30	
Bromobenzene	ND	5.0	102	101	1.0	97	99	2.0	70 - 130	30	
Bromochloromethane	ND	5.0	102	102	0.0	99	100	1.0	70 - 130	30	
Bromodichloromethane	ND	5.0	104	105	1.0	99	99	0.0	70 - 130	30	
Bromoform	ND	5.0	116	117	0.9	100	105	4.9	70 - 130	30	
Bromomethane	ND	5.0	101	102	1.0	59	56	5.2	70 - 130	30	m
Carbon Disulfide	ND	5.0	117	116	0.9	87	84	3.5	70 - 130	30	
Carbon tetrachloride	ND	5.0	105	104	1.0	97	100	3.0	70 - 130	30	
Chlorobenzene	ND	5.0	100	99	1.0	99	99	0.0	70 - 130	30	
Chloroethane	ND	5.0	98	94	4.2	98	102	4.0	70 - 130	30	
Chloroform	ND	5.0	101	101	0.0	99	99	0.0	70 - 130	30	
Chloromethane	ND	5.0	94	91	3.2	89	89	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	104	1.0	101	100	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	104	103	1.0	100	100	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	115	116	0.9	105	108	2.8	70 - 130	30	
Dibromomethane	ND	5.0	98	98	0.0	96	96	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	96	95	1.0	89	90	1.1	70 - 130	30	
Ethylbenzene	ND	1.0	101	101	0.0	100	100	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	107	104	2.8	103	108	4.7	70 - 130	30	
Isopropylbenzene	ND	1.0	101	100	1.0	95	97	2.1	70 - 130	30	
m&p-Xylene	ND	2.0	101	101	0.0	99	100	1.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	89	2.2	82	82	0.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	98	98	0.0	90	87	3.4	70 - 130	30	
Methylene chloride	ND	5.0	89	90	1.1	85	82	3.6	70 - 130	30	
Naphthalene	ND	5.0	103	103	0.0	92	100	8.3	70 - 130	30	
n-Butylbenzene	ND	1.0	105	103	1.9	99	103	4.0	70 - 130	30	
n-Propylbenzene	ND	1.0	102	102	0.0	97	99	2.0	70 - 130	30	
o-Xylene	ND	2.0	99	99	0.0	98	99	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	105	103	1.9	100	103	3.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	107	106	0.9	102	104	1.9	70 - 130	30	
Styrene	ND	5.0	102	104	1.9	101	103	2.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	101	101	0.0	97	99	2.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrachloroethene	ND	5.0	100	99	1.0	99	101	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	100	96	4.1	91	93	2.2	70 - 130	30	
Toluene	ND	1.0	99	99	0.0	98	99	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	105	106	0.9	99	95	4.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	102	102	0.0	97	98	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	121	118	2.5	99	104	4.9	70 - 130	30	
Trichloroethene	ND	5.0	103	103	0.0	101	102	1.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	97	96	1.0	96	94	2.1	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	105	105	0.0	90	87	3.4	70 - 130	30	
Vinyl chloride	ND	5.0	102	99	3.0	100	100	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	101	100	1.0	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	99	100	1.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	97	%	101	102	1.0	100	100	0.0	70 - 130	30	
% Toluene-d8	98	%	99	99	0.0	100	99	1.0	70 - 130	30	

Comment:

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

QA/QC Batch 440548 (ug/kg), QC Sample No: CA98577 (CA98174)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	56	49	13.3	59	56	5.2	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	54	49	9.7	59	58	1.7	30 - 130	30	
1,2-Dichlorobenzene	ND	180	44	40	9.5	49	49	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	55	48	13.6	59	56	5.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	46	39	16.5	48	47	2.1	30 - 130	30	
1,4-Dichlorobenzene	ND	230	47	42	11.2	51	50	2.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	67	56	17.9	68	62	9.2	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	66	55	18.2	67	63	6.2	30 - 130	30	
2,4-Dichlorophenol	ND	130	60	54	10.5	63	60	4.9	30 - 130	30	
2,4-Dimethylphenol	ND	230	65	57	13.1	51	48	6.1	30 - 130	30	
2,4-Dinitrophenol	ND	230	15	11	30.8	63	48	27.0	30 - 130	30	l,r
2,4-Dinitrotoluene	ND	130	66	58	12.9	65	61	6.3	30 - 130	30	
2,6-Dinitrotoluene	ND	130	70	58	18.8	67	65	3.0	30 - 130	30	
2-Chloronaphthalene	ND	230	57	49	15.1	59	57	3.4	30 - 130	30	
2-Chlorophenol	ND	230	54	47	13.9	58	56	3.5	30 - 130	30	
2-Methylnaphthalene	ND	230	56	50	11.3	61	58	5.0	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	60	51	16.2	60	61	1.7	30 - 130	30	
2-Nitroaniline	ND	330	76	66	14.1	81	72	11.8	30 - 130	30	
2-Nitrophenol	ND	230	51	45	12.5	56	57	1.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	61	54	12.2	63	62	1.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	67	57	16.1	67	58	14.4	30 - 130	30	
3-Nitroaniline	ND	330	74	65	12.9	71	68	4.3	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	32	29	9.8	65	52	22.2	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	62	54	13.8	62	57	8.4	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	69	61	12.3	72	67	7.2	30 - 130	30	
4-Chloroaniline	ND	230	62	54	13.8	61	59	3.3	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	65	54	18.5	65	61	6.3	30 - 130	30	
4-Nitroaniline	ND	230	65	55	16.7	67	65	3.0	30 - 130	30	
4-Nitrophenol	ND	230	74	60	20.9	74	69	7.0	30 - 130	30	
Acenaphthene	ND	230	62	52	17.5	63	62	1.6	30 - 130	30	
Acenaphthylene	ND	130	58	49	16.8	58	57	1.7	30 - 130	30	
Acetophenone	ND	230	50	43	15.1	54	54	0.0	30 - 130	30	
Aniline	ND	330	44	37	17.3	44	40	9.5	30 - 130	30	
Anthracene	ND	230	63	54	15.4	62	65	4.7	30 - 130	30	

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benz(a)anthracene	ND	230	63	56	11.8	66	68	3.0	30 - 130	30	
Benzidine	ND	330	48	35	31.3	<10	<10	NC	30 - 130	30	m,r
Benzo(a)pyrene	ND	130	61	54	12.2	61	63	3.2	30 - 130	30	
Benzo(b)fluoranthene	ND	160	64	57	11.6	65	67	3.0	30 - 130	30	
Benzo(ghi)perylene	ND	230	53	46	14.1	53	49	7.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	67	57	16.1	69	68	1.5	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	59	45	26.9	30 - 130	30	l
Benzyl butyl phthalate	ND	230	72	62	14.9	74	71	4.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	59	53	10.7	66	62	6.3	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	48	44	8.7	48	52	8.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	47	40	16.1	49	50	2.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	69	58	17.3	67	75	11.3	30 - 130	30	
Carbazole	ND	230	65	57	13.1	65	64	1.6	30 - 130	30	
Chrysene	ND	230	61	54	12.2	64	68	6.1	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	60	52	14.3	65	57	13.1	30 - 130	30	
Dibenzofuran	ND	230	62	52	17.5	63	61	3.2	30 - 130	30	
Diethyl phthalate	ND	230	65	56	14.9	65	61	6.3	30 - 130	30	
Dimethylphthalate	ND	230	62	52	17.5	61	57	6.8	30 - 130	30	
Di-n-butylphthalate	ND	670	68	59	14.2	68	65	4.5	30 - 130	30	
Di-n-octylphthalate	ND	230	73	64	13.1	76	71	6.8	30 - 130	30	
Fluoranthene	ND	230	63	55	13.6	63	79	22.5	30 - 130	30	
Fluorene	ND	230	63	54	15.4	64	62	3.2	30 - 130	30	
Hexachlorobenzene	ND	130	63	56	11.8	62	61	1.6	30 - 130	30	
Hexachlorobutadiene	ND	230	55	50	9.5	58	56	3.5	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	53	45	16.3	53	50	5.8	30 - 130	30	
Hexachloroethane	ND	130	45	39	14.3	48	46	4.3	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	58	51	12.8	59	57	3.4	30 - 130	30	
Isophorone	ND	130	55	49	11.5	58	57	1.7	30 - 130	30	
Naphthalene	ND	230	54	50	7.7	61	59	3.3	30 - 130	30	
Nitrobenzene	ND	130	53	47	12.0	60	59	1.7	30 - 130	30	
N-Nitrosodimethylamine	ND	230	37	32	14.5	42	38	10.0	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	60	53	12.4	67	63	6.2	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	62	53	15.7	57	54	5.4	30 - 130	30	
Pentachloronitrobenzene	ND	230	63	54	15.4	59	61	3.3	30 - 130	30	
Pentachlorophenol	ND	230	52	46	12.2	71	67	5.8	30 - 130	30	
Phenanthrene	ND	130	62	54	13.8	64	87	30.5	30 - 130	30	
Phenol	ND	230	63	55	13.6	66	67	1.5	30 - 130	30	
Pyrene	ND	230	63	57	10.0	68	80	16.2	30 - 130	30	
Pyridine	ND	230	26	23	12.2	32	28	13.3	30 - 130	30	l,m
% 2,4,6-Tribromophenol	60	%	62	49	23.4	62	63	1.6	30 - 130	30	
% 2-Fluorobiphenyl	64	%	59	45	26.9	61	58	5.0	30 - 130	30	
% 2-Fluorophenol	50	%	50	38	27.3	52	48	8.0	30 - 130	30	
% Nitrobenzene-d5	55	%	51	40	24.2	56	57	1.8	30 - 130	30	
% Phenol-d5	57	%	57	43	28.0	62	58	6.7	30 - 130	30	
% Terphenyl-d14	66	%	63	49	25.0	62	57	8.4	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 440854 (ug/kg), QC Sample No: CA98838 (CA98185 (100X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	107	108	0.9	110	109	0.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	105	104	1.0	110	108	1.8	70 - 130	30	

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,2,2-Tetrachloroethane	ND	3.0	106	106	0.0	114	115	0.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	100	100	0.0	100	98	2.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	107	105	1.9	109	109	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	98	100	2.0	104	103	1.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	104	105	1.0	108	105	2.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	104	102	1.9	107	107	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	99	101	2.0	113	116	2.6	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	106	105	0.9	108	107	0.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	102	102	0.0	102	95	7.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	109	111	1.8	107	114	6.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	104	103	1.0	102	102	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	100	100	0.0	89	85	4.6	70 - 130	30	
1,2-Dichloroethane	ND	5.0	100	100	0.0	99	99	0.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	102	102	0.0	105	103	1.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	103	103	0.0	107	100	6.8	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	103	102	1.0	94	88	6.6	70 - 130	30	
1,3-Dichloropropane	ND	5.0	102	100	2.0	103	102	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	102	102	0.0	92	87	5.6	70 - 130	30	
2,2-Dichloropropane	ND	5.0	112	107	4.6	109	107	1.9	70 - 130	30	
2-Chlorotoluene	ND	5.0	100	101	1.0	106	101	4.8	70 - 130	30	
2-Hexanone	ND	25	93	93	0.0	88	84	4.7	70 - 130	30	
2-Isopropyltoluene	ND	5.0	106	105	0.9	105	95	10.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	103	102	1.0	103	99	4.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	99	1.0	95	65	37.5	70 - 130	30	m,r
Acetone	ND	10	79	83	4.9	68	68	0.0	70 - 130	30	m
Acrylonitrile	ND	5.0	107	107	0.0	105	73	36.0	70 - 130	30	r
Benzene	ND	1.0	102	101	1.0	105	104	1.0	70 - 130	30	
Bromobenzene	ND	5.0	102	102	0.0	105	102	2.9	70 - 130	30	
Bromochloromethane	ND	5.0	105	103	1.9	106	105	0.9	70 - 130	30	
Bromodichloromethane	ND	5.0	107	106	0.9	107	109	1.9	70 - 130	30	
Bromoform	ND	5.0	115	116	0.9	107	112	4.6	70 - 130	30	
Bromomethane	ND	5.0	99	101	2.0	102	96	6.1	70 - 130	30	
Carbon Disulfide	ND	5.0	111	115	3.5	110	109	0.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	108	107	0.9	110	110	0.0	70 - 130	30	
Chlorobenzene	ND	5.0	102	102	0.0	100	98	2.0	70 - 130	30	
Chloroethane	ND	5.0	92	94	2.2	108	104	3.8	70 - 130	30	
Chloroform	ND	5.0	104	104	0.0	107	106	0.9	70 - 130	30	
Chloromethane	ND	5.0	96	96	0.0	95	96	1.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	105	104	1.0	107	106	0.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	106	106	0.0	99	96	3.1	70 - 130	30	
Dibromochloromethane	ND	3.0	118	117	0.9	116	121	4.2	70 - 130	30	
Dibromomethane	ND	5.0	101	101	0.0	101	101	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	102	101	1.0	105	104	1.0	70 - 130	30	
Ethylbenzene	ND	1.0	102	103	1.0	105	101	3.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	107	104	2.8	110	112	1.8	70 - 130	30	
Isopropylbenzene	ND	1.0	101	101	0.0	113	107	5.5	70 - 130	30	
m&p-Xylene	ND	2.0	103	102	1.0	102	98	4.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	92	1.1	89	82	8.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	86	89	3.4	86	87	1.2	70 - 130	30	
Methylene chloride	ND	5.0	86	88	2.3	87	88	1.1	70 - 130	30	
Naphthalene	ND	5.0	103	102	1.0	105	103	1.9	70 - 130	30	
n-Butylbenzene	ND	1.0	107	106	0.9	91	78	15.4	70 - 130	30	
n-Propylbenzene	ND	1.0	103	102	1.0	110	101	8.5	70 - 130	30	

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
o-Xylene	ND	2.0	101	100	1.0	101	97	4.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	105	104	1.0	99	88	11.8	70 - 130	30
sec-Butylbenzene	ND	1.0	107	106	0.9	105	93	12.1	70 - 130	30
Styrene	ND	5.0	105	104	1.0	89	86	3.4	70 - 130	30
tert-Butylbenzene	ND	1.0	101	101	0.0	106	97	8.9	70 - 130	30
Tetrachloroethene	ND	5.0	102	102	0.0	106	99	6.8	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	101	101	0.0	97	98	1.0	70 - 130	30
Toluene	ND	1.0	101	101	0.0	104	100	3.9	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	99	103	4.0	103	102	1.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	104	104	0.0	95	94	1.1	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	124	123	0.8	105	105	0.0	70 - 130	30
Trichloroethene	ND	5.0	105	104	1.0	108	106	1.9	70 - 130	30
Trichlorofluoromethane	ND	5.0	99	100	1.0	109	108	0.9	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	102	103	1.0	107	104	2.8	70 - 130	30
Vinyl chloride	ND	5.0	103	104	1.0	106	107	0.9	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	100	1.0	98	99	1.0	70 - 130	30
% Bromofluorobenzene	98	%	100	98	2.0	94	94	0.0	70 - 130	30
% Dibromofluoromethane	97	%	101	101	0.0	100	101	1.0	70 - 130	30
% Toluene-d8	97	%	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 440858 (ug/kg), QC Sample No: CA99053 (CA98176 (50X) , CA98183 (50X))

Volatiles - Soil

1,1,2,2-Tetrachloroethane	ND	3.0	103	104	1.0	101	107	5.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	104	105	1.0	88	99	11.8	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	103	105	1.9	105	111	5.6	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	107	108	0.9	90	98	8.5	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	100	100	0.0	81	90	10.5	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	99	100	1.0	88	76	14.6	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	101	102	1.0	84	93	10.2	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	101	101	0.0	71	80	11.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	100	101	1.0	71	79	10.7	70 - 130	30
2-Chlorotoluene	ND	5.0	99	99	0.0	84	94	11.2	70 - 130	30
2-Isopropyltoluene	ND	5.0	103	104	1.0	80	91	12.9	70 - 130	30
4-Chlorotoluene	ND	5.0	101	101	0.0	82	92	11.5	70 - 130	30
Bromobenzene	ND	5.0	100	101	1.0	88	96	8.7	70 - 130	30
Hexachlorobutadiene	ND	5.0	104	106	1.9	94	101	7.2	70 - 130	30
Isopropylbenzene	ND	1.0	99	99	0.0	91	100	9.4	70 - 130	30
Naphthalene	ND	5.0	101	103	2.0	84	98	15.4	70 - 130	30
n-Butylbenzene	ND	1.0	105	105	0.0	91	73	22.0	70 - 130	30
n-Propylbenzene	ND	1.0	101	100	1.0	85	96	12.2	70 - 130	30
p-Isopropyltoluene	ND	1.0	103	103	0.0	73	83	12.8	70 - 130	30
sec-Butylbenzene	ND	1.0	104	104	0.0	77	88	13.3	70 - 130	30
tert-Butylbenzene	ND	1.0	99	98	1.0	83	93	11.4	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	117	119	1.7	103	109	5.7	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	100	1.0	98	98	0.0	70 - 130	30
% Bromofluorobenzene	98	%	99	99	0.0	93	92	1.1	70 - 130	30

Comment:

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

QA/QC Data

SDG I.D.: GCA98174

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 441930 (ug/Kg), QC Sample No: CB04688 2X (CA98177, CA98180)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	77	88	13.3	61	56	8.5	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	86	106	20.8	92	89	3.3	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	101	%	107	111	3.7	100	96	4.1	30 - 150	30
% TCMX (Surrogate Rec)	94	%	91	103	12.4	76	67	12.6	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
August 09, 2018

Thursday, August 09, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98174 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA98174	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	3000	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1700	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3000	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2600	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2900	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1400	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1700	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2900	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2600	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	3000	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2900	300	1000	1000	ug/Kg
CA98174	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2500	300	1000	1000	ug/Kg
CA98174	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	48.5	0.89	10	10	mg/Kg
CA98174	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	48.5	0.89	10	10	mg/Kg
CA98175	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	4900	250	1000	1000	ug/Kg
CA98175	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	16000	1000	7800	7800	ug/Kg
CA98175	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	23000	1000	7800	7800	ug/Kg
CA98175	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	24000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	35000	1000	7800	7800	ug/Kg
CA98175	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	4900	250	1000	1000	ug/Kg
CA98175	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	16000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	12000	1000	8400	8400	ug/Kg
CA98175	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	24000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	23000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	1000	8400	8400	ug/Kg
CA98175	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	35000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	16000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	4900	250	1000	1000	ug/Kg
CA98175	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	33000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	12000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	35000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	23000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	24000	1000	1000	1000	ug/Kg
CA98175	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CA98175	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	630	270	500	500	mg/Kg
CA98176	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2500	250	1000	1000	ug/Kg
CA98176	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1700	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1400	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2500	250	1000	1000	ug/Kg

Thursday, August 09, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98174 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA98176	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1700	250	1000	1000	ug/Kg
CA98176	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	1600	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1300	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1800	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2500	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1400	250	1000	1000	ug/Kg
CA98176	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	3400	240	1000	1000	ug/Kg
CA98179	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2500	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3700	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3400	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3100	240	1000	1000	ug/Kg
CA98179	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2500	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2100	240	1000	1000	ug/Kg
CA98179	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3800	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3700	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2800	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3100	240	1000	1000	ug/Kg
CA98179	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	3400	240	1000	1000	ug/Kg
CA98180	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	14000	1000	7800	7800	ug/Kg
CA98180	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	9900	1000	7800	7800	ug/Kg
CA98180	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	7700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9600	1000	8400	8400	ug/Kg
CA98180	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	9900	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	14000	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	6700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	7700	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	9900	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	9600	1000	1000	1000	ug/Kg
CA98180	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	14000	1000	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1600	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg

Thursday, August 09, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98174 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA98182	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2200	250	1000	1000	ug/Kg
CA98182	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1600	250	1000	1000	ug/Kg
CA98182	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2200	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2300	250	1000	1000	ug/Kg
CA98182	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1700	250	1000	1000	ug/Kg
CA98183	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	147	0.76	10	10	mg/Kg
CA98183	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	147	0.76	10	10	mg/Kg
CA98185	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	12000	1200	7800	7800	ug/Kg
CA98185	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	7900	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	3500	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3900	1300	1000	1000	ug/Kg
CA98185	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7900	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	12000	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	3700	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	3500	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
CA98185	$8100SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	45000	2600	5600	5600	ug/Kg
CA98185	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	14000	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3900	1300	1000	1000	ug/Kg
CA98185	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	7900	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	12000	1200	1000	1000	ug/Kg
CA98185	$8100SMR	Phenanthrene	CT / RSR GB (mg/kg) / Semivolatiles	53000	2600	40000	40000	ug/Kg
CA98185	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	6600	1200	1000	1000	ug/Kg
CA98185	$8260MAR	1,2-Dibromoethane	CT / RSR DEC I/C (mg/kg) / Volatiles	ND	68	67	67	ug/Kg
CA98185	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR DEC RES (mg/kg) / APS Organics	ND	140	90	90	ug/Kg
CA98185	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	68	7	7	ug/Kg
CA98185	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	140	40	40	ug/Kg
CA98185	$8260MAR	Dibromochloromethane	CT / RSR GB (mg/kg) / Volatiles	ND	140	100	100	ug/Kg
CA98185	$8260MAR	1,1,2,2-Tetrachloroethane	CT / RSR GB (mg/kg) / Volatiles	ND	140	100	100	ug/Kg
CA98185	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	4200	280	2500	2500	mg/Kg
CA98185	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	4200	280	500	500	mg/Kg
CA98185	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	4200	280	2500	2500	mg/Kg

Thursday, August 09, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98174 - TIGHE-DAS

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

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

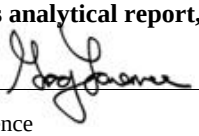
Laboratory Sample ID(s): CA98174-CA98183, CA98185 ***Sampling Date(s):*** 7/24/2018, 7/25/2018

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 Section: 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, August 09, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

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 ID: CA98185
Not all of the requested criteria could be achieved due to the concentration of target and non-target compounds. Refer to the Sample Criteria Exceedances Report section of this report.

Cyanide Narration

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

Instrument:

LACHAT 07/27/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/27/18

CA98174, CA98175, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183, CA98185

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 440581 (CA98176)

CA98174, CA98175, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183, CA98185

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

ETPH Narration

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

Instrument:

AU-FID1 07/27/18-1 Jeff Bucko, Chemist 07/27/18

CA98185

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 07/26/18-1 Jeff Bucko, Chemist 07/26/18

CA98181, CA98183

The initial calibration (ETPH627I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 07/27/18-1 Jeff Bucko, Chemist 07/27/18

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Tel. (860) 645-1102 Fax (860) 645-0823

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RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

ETPH Narration

CA98174, CA98175, CA98176, CA98179, CA98180

The initial calibration (ETPH627I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL1 07/26/18-1 Jeff Bucko, Chemist 07/26/18

CA98177, CA98178

The initial calibration (ETPH726I) 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 07/26/18-1 Jeff Bucko, Chemist 07/26/18

CA98182

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 440478 (CA97861)

CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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

CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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 07/27/18 07:20 Rick Schweitzer, Chemist 07/27/18

CA98178, CA98181

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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

August 09, 2018

SDG I.D.: GCA98174

Mercury Narration

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

MERLIN 08/07/18 08:24 Rick Schweitzer, Chemist 08/07/18

CA98176, CA98182

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 440447 (CA97790)

CA98174

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

Batch 440468 (CA98143)

CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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

Batch 440639 (CA96173)

CA98178, CA98181

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

Batch 442008 (CB05482)

CA98176

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

QC (Site Specific):

Batch 442009 (CA98182)

CA98182

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%.

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NY # 11301

Certification Report

August 09, 2018

SDG I.D.: GCA98174

Mercury Narration

ICP Metals Narration

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

Instrument:

ARCOS 07/27/18 10:11 Cindy Pearce, Emily Kolominskaya, Chemist 07/27/18

CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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 07/30/18 08:44 Cindy Pearce, Emily Kolominskaya, Chemist 07/30/18

CA98176

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 07/26/18 11:34 Cindy Pearce, Chemist 07/26/18

CA98174

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 07/27/18 09:57 Cindy Pearce, Emily Kolominskaya, Chemist 07/27/18

CA98178, CA98181

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 08/07/18 13:40 Emily Kolominskaya, Chemist 08/07/18

CA98176, CA98182

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

August 09, 2018

SDG I.D.: GCA98174

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 440453 (CA97658)

CA98174

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

Batch 440684 (CA96173)

CA98178, CA98181

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

Batch 442012 (CA96215)

CA98176, CA98182

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

QC (Site Specific):

Batch 440564 (CA98176)

CA98174, CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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-ECD29 08/07/18-1 Adam Werner, Chemist 08/07/18

CA98177, CA98180

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

QC (Batch Specific):

Batch 441930 (CB04688)

CA98177, CA98180

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

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RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

PCB Narration

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 440548 (Samples: CA98174): -----

The QC recovery is below the lower range but within the method criteria. A low bias for this analyte is possible. (Pyridine)

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 these analytes is possible. (2,4-Dinitrophenol)

The LCS/LCSD recovery is below the method criteria. The Batch MS/MSD recovery is acceptable. A low bias for these analytes is possible.(Benzoic Acid)

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. (4,6-Dinitro-2-methylphenol)

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

Instrument:

CHEM05 07/26/18-2 Matt Richard, Chemist 07/26/18

CA98174

Initial Calibration Verification (CHEM05/SPLIT_0722):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 37% (20%), Benzidine 28% (20%)
The following compounds did not meet recommended response factors: Bis(2-chloroethoxy)methane 0.288 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0726_17-SPLIT_0722):
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 33%L (30%), Pyridine 37%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: Bis(2-chloroethoxy)methane 0.273 (0.3)
The following compounds did not meet minimum response factors: None.

CHEM05 07/30/18-1 Harry Mullin, Chemist 07/30/18

CA98177, CA98183

Initial Calibration Verification (CHEM05/SPLIT_0722):
95% 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 (CHEM05/0730_04-SPLIT_0722):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

SVOA Narration

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

CA98175, CA98176, CA98178, CA98179, CA98180, CA98181, CA98182, CA98185

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_0627):
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 (CHEM06/0726_04A-BN_0627):
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 07/30/18-1 Harry Mullin, Chemist 07/30/18

CA98175, CA98180

Initial Calibration Verification (CHEM29/SPLIT_0726):
86% of target compounds met criteria.
The following compounds had %RSDs >20%: Benz(a)anthracene 40% (20%), Chrysene 40% (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 (CHEM29/0730_02-SPLIT_0726):
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: 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 440480 (CA98063)

CA98175, CA98176, CA98177, CA98178, CA98179, CA98180, CA98181, CA98182, CA98183, CA98185

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

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RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

SVOA Narration

surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 440548 (CA98577)

CA98174

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(15%), Benzoic Acid(<10%), Pyridine(26%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), 4,6-Dinitro-2-methylphenol(29%), Benzoic Acid(<10%), Pyridine(23%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 2,4-Dinitrophenol(30.8%), Benzidine(31.3%)
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%)

VOA Narration

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

Instrument:

CHEM03 07/26/18-2 Jane Li, Chemist 07/26/18

CA98174, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183

Initial Calibration Verification (CHEM03/VT-L0726):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 25% (20%), Bromoform 26% (20%), Chloroethane 27% (20%)
The following compounds did not meet recommended response factors: Acetone 0.075 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0726L24-VT-L0726):
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 07/27/18-1 Jane Li, Chemist 07/27/18

CA98176, CA98183

Initial Calibration Verification (CHEM03/VT-L0726):
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 (CHEM03/0727L02-VT-L0726):
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 07/28/18-1 Jane Li, Chemist 07/28/18

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RCP Certification Report

August 09, 2018

SDG I.D.: GCA98174

VOA Narration

CA98185

Initial Calibration Verification (CHEM03/VT-L0726):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 25% (20%), Bromoform 26% (20%), Chloroethane 27% (20%)
The following compounds did not meet recommended response factors: Acetone 0.075 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0728L02-VT-L0726):
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 440692 (CA98497)

CA98174, CA98176, CA98177, CA98179, CA98180, CA98182, CA98183

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%.

Batch 440854 (CA98838)

CA98185

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%.

Batch 440858 (CA99053)

CA98176, CA98183

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%.

Temperature Narration

The samples were received at 4.0C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 4.0 °C Pg 1 of 1

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LHWilley@CTLightandBard.com

Customer: Light + Bard
Address: 215 Court St Suite 1100
Middletown CT

Project: Rockville MGP
Report to: ~~Light + Bard~~ Lynn Willey
Invoice to: Light + Bard

Project P.O: 14-0755-4495

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/25/19

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	ETPHs	Total Cyanide	Total RSR metals	SPLP RSR metals	PAHs	Soil VOA Vials [X] methanol [X] H2O	GL Soil container ( ) 1oz	GL Soil container ( ) 1oz	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
98174	SB-43 (0.5-2 ft)	S	7/24/19	9:40	X	X	X	X	X	X		3	1								
98175	SB-43 (5-7 ft)		7/24/19	10:50			X	X	X		X	3	1								
98176	SB-54 (0.5-2 ft)		7/25/19	9:20	X		X	X	X		X	3	1								
98177	SB-57 (2-4 ft)			10:05	X		X	X	X		X	3	1								
98178	~~Dup~~ SB-57 (8-10 ft)			10:20			X		X	X	X	3	1								
98179	SB-56 (0.5-2 ft)			10:30	X		X	X	X		X	3	1								
98180	SB-55 (2-4 ft)			10:50	X		X	X	X		X	3	1								
98181	SB-55 (8-9 ft)			10:55			X		X	X	X	3	1								
98182	SB-54 (2-4 ft)			11:10	X		X	X	X		X	3	1								
98183	SB-44 (3-5 ft)			13:30	X		X	X	X		X	3	1								
98184	SB-52 (1-3 ft)			14:10								3	1								
98185	SB-52 (16-14 ft)			14:50	X		X	X	X		X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/25/19	10:32

Comments, Special Requirements or Regulations:
Please Hold SB-52 (1-3 ft)
DAYS Pricing
Over: TIO25178A

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
[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 (-ctabs)

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

* SURCHARGE APPLIES

Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Monday, August 06, 2018 2:02 PM
To: Sarah Bell
Cc: Lynn E. Willey
Subject: Additional Requests - Rockville MGP

Hi Sarah,

Thank you for getting the prelim data over. Can you please activate the following samples:

Phoenix ID	T&B ID	Analysis
GCA98180	SB-55 (2-4 ft)	PCBs
GCA98177	SB-57 (2-4 ft)	PCBs
GCA98182	SB-54 (2-4 ft)	SPLP RSR Metals
GCA98176	SB-58 (0.5-2 ft)	SPLP RSR Metals
GCA98805	SB-31 (1-3 ft)	SPLP RSR Metals

Just a note the two samples for PCBs are out of hold time starting tomorrow.

Thank you,
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

PHOENIX
Environmental Laboratories, Inc.

Friday, August 17, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA98805 - CA98810

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	8:30
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98805

Project ID: ROCKVILLE MGP
Client ID: SB-31 (1-3 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 3.0	3.0	mg/Kg	1	07/27/18	EK	SW6010C
Arsenic	3.62	0.80	mg/Kg	1	07/27/18	EK	SW6010C
Barium	46.2	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Beryllium	0.45	0.32	mg/Kg	1	07/27/18	EK	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Chromium	19.5	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Copper	28.6	0.8	mg/kg	1	07/27/18	EK	SW6010C
Mercury	1.09	0.14	mg/Kg	1	07/27/18	RS	SW7471B
Nickel	14.0	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Lead	134	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Antimony	< 4.0	4.0	mg/Kg	1	07/27/18	EK	SW6010C
Selenium	< 5.2	5.2	mg/Kg	1	07/27/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/08/18	EK	SW6010C
SPLP Barium	0.014	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/08/18	EK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Copper	0.012	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Mercury	0.0006	0.0005	mg/L	1	08/07/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Lead	0.026	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/08/18	EK	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/08/18	EK	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/08/18	EK	SW6010C
SPLP Zinc	0.031	0.010	mg/L	1	08/08/18	EK	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	07/27/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-31 (1-3 FT)

Phoenix I.D.: CA98805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/07/18	Q/I/Q	SW3010A
Vanadium	28.2	0.40	mg/Kg	1	07/27/18	EK	SW6010C
Zinc	82.1	0.8	mg/Kg	1	07/27/18	EK	SW6010C
Percent Solid	86		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	26.5	0.58	mg/Kg	1	07/27/18	O/GD	SW9012B
Soil Extraction for Pesticide	Completed				08/03/18	JJ/V	SW3545A
Soil Extraction SVOA PAH	Completed				07/26/18	JJ/CKV	SW3545A
Mercury Digestion	Completed				07/27/18	I/I	SW7471B
SPLP Digestion Mercury	Completed				08/07/18	Q/I/Q	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/06/18	Q	SW1312
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
Pesticides							
4,4' -DDD	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
4,4' -DDE	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
4,4' -DDT	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Alachlor	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	08/13/18	CW	SW8081B
b-BHC	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	08/13/18	CW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Dieldrin	4.9	3.8	ug/Kg	2	08/13/18	CW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Endrin	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	08/13/18	CW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	08/13/18	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	08/13/18	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	08/13/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	75		%	2	08/13/18	CW	30 - 150 %
% TCMX	113		%	2	08/13/18	CW	30 - 150 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	770	ug/Kg	10	07/27/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
2,4-Dichlorophenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2,4-Dimethylphenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2,4-Dinitrophenol	ND	2800	ug/Kg	10	07/27/18	KCA	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-31 (1-3 FT)

Phoenix I.D.: CA98805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-Dinitrotoluene	ND	1500	ug/Kg	10	07/27/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	1200	ug/Kg	10	07/27/18	KCA	SW8270D
2-Chloronaphthalene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2-Chlorophenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2-Methylnaphthalene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
2-Nitroaniline	ND	2000	ug/Kg	10	07/27/18	KCA	SW8270D
2-Nitrophenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	3800	ug/Kg	10	07/27/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
3-Nitroaniline	ND	2000	ug/Kg	10	07/27/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	2000	ug/Kg	10	07/27/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	3800	ug/Kg	10	07/27/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
4-Chloroaniline	ND	1500	ug/Kg	10	07/27/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
4-Nitroaniline	ND	2000	ug/Kg	10	07/27/18	KCA	SW8270D
4-Nitrophenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Acenaphthene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Acenaphthylene	8300	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Acetophenone	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Aniline	ND	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Anthracene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Benz(a)anthracene	2000	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Benzidine	ND	1500	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(a)pyrene	2900	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(b)fluoranthene	3000	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(ghi)perylene	9400	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Benzo(k)fluoranthene	3200	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Benzoic acid	ND	7600	ug/Kg	10	07/27/18	KCA	SW8270D
Benzyl butyl phthalate	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	2400	ug/Kg	10	07/27/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Carbazole	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Chrysene	3000	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Dibenz(a,h)anthracene	1300	1200	ug/Kg	10	07/27/18	KCA	SW8270D
Dibenzofuran	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
Diethyl phthalate	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Dimethylphthalate	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Di-n-butylphthalate	ND	3800	ug/Kg	10	07/27/18	KCA	SW8270D
Di-n-octylphthalate	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Fluoranthene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Fluorene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Hexachlorobenzene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	10	07/27/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Hexachloroethane	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-31 (1-3 FT)

Phoenix I.D.: CA98805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	6800	1300	ug/Kg	10	07/27/18	KCA	SW8270D
Isophorone	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Naphthalene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Nitrobenzene	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	760	ug/Kg	10	07/27/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	760	ug/Kg	10	07/27/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	1400	ug/Kg	10	07/27/18	KCA	SW8270D
Pentachloronitrobenzene	ND	1400	ug/Kg	10	07/27/18	KCA	SW8270D
Pentachlorophenol	ND	1400	ug/Kg	10	07/27/18	KCA	SW8270D
Phenanthrene	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Phenol	ND	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Pyrene	4000	2700	ug/Kg	10	07/27/18	KCA	SW8270D
Pyridine	ND	1000	ug/Kg	10	07/27/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	07/27/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	Diluted Out		%	10	07/27/18	KCA	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	07/27/18	KCA	30 - 130 %
% Nitrobenzene-d5	Diluted Out		%	10	07/27/18	KCA	30 - 130 %
% Phenol-d5	Diluted Out		%	10	07/27/18	KCA	30 - 130 %
% Terphenyl-d14	Diluted Out		%	10	07/27/18	KCA	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:
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.

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
August 17, 2018
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

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	8:45
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98806

Project ID: ROCKVILLE MGP
Client ID: SB-31 (15-17 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.52	0.52	mg/Kg	1	08/06/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				08/03/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	KL/IG/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	6600	290	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	85		%	5	07/30/18	AW	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	07/31/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/31/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,1-Dichloroethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,1-Dichloroethene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,1-Dichloropropene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2,4-Trimethylbenzene	2500	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	80	ug/Kg	50	07/31/18	JLI	SW8260C
1,2-Dibromoethane	ND	40	ug/Kg	50	07/31/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	50	07/31/18	JLI	SW8260C
1,2-Dichloropropane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-31 (15-17 FT)

Phoenix I.D.: CA98806

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	800	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,3-Dichloropropane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
2,2-Dichloropropane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
2-Chlorotoluene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
2-Hexanone	ND	2000	ug/Kg	50	07/31/18	JLI	SW8260C
2-Isopropyltoluene	180	160	ug/Kg	50	07/31/18	JLI	SW8260C
4-Chlorotoluene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	2000	ug/Kg	50	07/31/18	JLI	SW8260C
Acetone	ND	20000	ug/Kg	50	07/31/18	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	07/31/18	JLI	SW8260C
Benzene	ND	200	ug/Kg	50	07/31/18	JLI	SW8260C
Bromobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Bromochloromethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Bromodichloromethane	ND	210	ug/Kg	50	07/31/18	JLI	SW8260C
Bromoform	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Bromomethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Carbon Disulfide	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Carbon tetrachloride	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Chlorobenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Chloroethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Chloroform	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Chloromethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	100	ug/Kg	50	07/31/18	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	07/31/18	JLI	SW8260C
Dibromomethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Dichlorodifluoromethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Ethylbenzene	1300	400	ug/Kg	50	07/31/18	JLI	SW8260C
Hexachlorobutadiene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Isopropylbenzene	1200	400	ug/Kg	50	07/31/18	JLI	SW8260C
m&p-Xylene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	2400	ug/Kg	50	07/31/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	800	ug/Kg	50	07/31/18	JLI	SW8260C
Methylene chloride	ND	800	ug/Kg	50	07/31/18	JLI	SW8260C
Naphthalene	4200	400	ug/Kg	50	07/31/18	JLI	SW8260C
n-Butylbenzene	830	400	ug/Kg	50	07/31/18	JLI	SW8260C
n-Propylbenzene	1100	400	ug/Kg	50	07/31/18	JLI	SW8260C
o-Xylene	700	400	ug/Kg	50	07/31/18	JLI	SW8260C
p-Isopropyltoluene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
sec-Butylbenzene	250	240	ug/Kg	50	07/31/18	JLI	SW8260C
Styrene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
tert-Butylbenzene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Tetrachloroethene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	800	ug/Kg	50	07/31/18	JLI	SW8260C
Toluene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Total Xylenes	700	400	ug/Kg	50	07/31/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-31 (15-17 FT)

Phoenix I.D.: CA98806

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	100	ug/Kg	50	07/31/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	800	ug/Kg	50	07/31/18	JLI	SW8260C
Trichloroethene	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Trichlorofluoromethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	400	ug/Kg	50	07/31/18	JLI	SW8260C
Vinyl chloride	ND	320	ug/Kg	50	07/31/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	50	07/31/18	JLI	70 - 130 %
% Bromofluorobenzene	113		%	50	07/31/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	50	07/31/18	JLI	70 - 130 %
% Toluene-d8	94		%	50	07/31/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	08/04/18	HM	SW8270D
Acenaphthene	29000	1300	ug/Kg	5	08/05/18	HM	SW8270D
Acenaphthylene	2700	260	ug/Kg	1	08/04/18	HM	SW8270D
Anthracene	12000	1300	ug/Kg	5	08/05/18	HM	SW8270D
Benz(a)anthracene	6800	260	ug/Kg	1	08/04/18	HM	SW8270D
Benzo(a)pyrene	5500	260	ug/Kg	1	08/04/18	HM	SW8270D
Benzo(b)fluoranthene	2300	260	ug/Kg	1	08/04/18	HM	SW8270D
Benzo(ghi)perylene	2000	260	ug/Kg	1	08/04/18	HM	SW8270D
Benzo(k)fluoranthene	2900	260	ug/Kg	1	08/04/18	HM	SW8270D
Chrysene	5900	260	ug/Kg	1	08/04/18	HM	SW8270D
Dibenz(a,h)anthracene	430	260	ug/Kg	1	08/04/18	HM	SW8270D
Fluoranthene	14000	1300	ug/Kg	5	08/05/18	HM	SW8270D
Fluorene	17000	1300	ug/Kg	5	08/05/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	1900	260	ug/Kg	1	08/04/18	HM	SW8270D
Naphthalene	1700	260	ug/Kg	1	08/04/18	HM	SW8270D
Phenanthrene	35000	6500	ug/Kg	25	08/06/18	HM	SW8270D
Pyrene	20000	1300	ug/Kg	5	08/05/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	08/04/18	HM	30 - 130 %
% Nitrobenzene-d5	74		%	1	08/04/18	HM	30 - 130 %
% Terphenyl-d14	73		%	1	08/04/18	HM	30 - 130 %
Field Extraction	Completed				07/26/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-31 (15-17 FT)

Phoenix I.D.: CA98806

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:

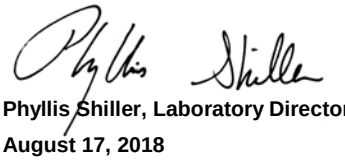
TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

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
August 17, 2018
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

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	11:00
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98807

Project ID: ROCKVILLE MGP
Client ID: SB-30 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 3.0	3.0	mg/Kg	1	07/27/18	EK	SW6010C
Arsenic	8.45	0.70	mg/Kg	1	07/27/18	EK	SW6010C
Barium	69.6	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Beryllium	0.39	0.28	mg/Kg	1	07/27/18	EK	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Chromium	27.0	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Copper	37.8	0.8	mg/kg	1	07/27/18	EK	SW6010C
Mercury	0.21	0.15	mg/Kg	1	07/27/18	RS	SW7471B
Nickel	12.6	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Lead	69.0	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Antimony	< 3.5	3.5	mg/Kg	1	07/27/18	EK	SW6010C
Selenium	< 5.2	5.2	mg/Kg	1	07/27/18	EK	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	07/27/18	EK	SW6010C
Vanadium	33.3	0.35	mg/Kg	1	07/27/18	EK	SW6010C
Zinc	30.0	0.8	mg/Kg	1	07/27/18	EK	SW6010C
Percent Solid	88		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	27.3	0.52	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction for SVOA	Completed				07/26/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	KL/IG/VCK	SW3545A
Mercury Digestion	Completed				07/27/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	760	280	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	96		%	5	07/30/18	AW	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-30 (2-4 FT)

Phoenix I.D.: CA98807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
2-Hexanone	ND	37	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	37	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	370	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
Bromochloromethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	4.5	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-30 (2-4 FT)

Phoenix I.D.: CA98807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	45	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	380	380	ug/Kg	50	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
o-Xylene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
Styrene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	470	ug/Kg	50	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	940	ug/Kg	50	07/28/18	JLI	SW8260C
Trichloroethene	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	7.4	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	50	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	95		%	50	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	110		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	98		%	1	07/28/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2-Methylnaphthalene	300	260	ug/Kg	1	07/27/18	HM	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	07/27/18	HM	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-30 (2-4 FT)

Phoenix I.D.: CA98807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	07/27/18	HM	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthylene	2000	260	ug/Kg	1	07/27/18	HM	SW8270D
Acetophenone	ND	300	ug/Kg	1	07/27/18	HM	SW8270D
Aniline	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Anthracene	910	260	ug/Kg	1	07/27/18	HM	SW8270D
Benz(a)anthracene	2100	260	ug/Kg	1	07/27/18	HM	SW8270D
Benzidine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(a)pyrene	1900	260	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(b)fluoranthene	3100	260	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(ghi)perylene	2300	260	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(k)fluoranthene	2900	260	ug/Kg	1	07/27/18	HM	SW8270D
Benzoic acid	ND	750	ug/Kg	1	07/27/18	HM	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Carbazole	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Chrysene	3300	260	ug/Kg	1	07/27/18	HM	SW8270D
Dibenz(a,h)anthracene	660	260	ug/Kg	1	07/27/18	HM	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Fluoranthene	3200	260	ug/Kg	1	07/27/18	HM	SW8270D
Fluorene	360	260	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	2400	260	ug/Kg	1	07/27/18	HM	SW8270D
Isophorone	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Naphthalene	400	260	ug/Kg	1	07/27/18	HM	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	07/27/18	HM	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-30 (2-4 FT)

Phoenix I.D.: CA98807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	2400	260	ug/Kg	1	07/27/18	HM	SW8270D
Phenol	ND	260	ug/Kg	1	07/27/18	HM	SW8270D
Pyrene	4000	260	ug/Kg	1	07/27/18	HM	SW8270D
Pyridine	ND	380	ug/Kg	1	07/27/18	HM	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	53		%	1	07/27/18	HM	30 - 130 %
% 2-Fluorobiphenyl	53		%	1	07/27/18	HM	30 - 130 %
% 2-Fluorophenol	54		%	1	07/27/18	HM	30 - 130 %
% Nitrobenzene-d5	56		%	1	07/27/18	HM	30 - 130 %
% Phenol-d5	59		%	1	07/27/18	HM	30 - 130 %
% Terphenyl-d14	60		%	1	07/27/18	HM	30 - 130 %
Field Extraction	Completed				07/26/18		SW5035A

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

Comments:

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

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

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 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
August 17, 2018
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

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	12:00
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98808

Project ID: ROCKVILLE MGP
Client ID: SB-30 (15-17 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	KL/IG/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	710	270	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	5	07/30/18	AW	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-30 (15-17 FT)

Phoenix I.D.: CA98808

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
o-Xylene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-30 (15-17 FT)

Phoenix I.D.: CA98808

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthylene	260	250	ug/Kg	1	07/27/18	HM	SW8270D
Anthracene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(ghi)perylene	250	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Chrysene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Fluoranthene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Fluorene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Pyrene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	81		%	1	07/27/18	HM	30 - 130 %
% Nitrobenzene-d5	75		%	1	07/27/18	HM	30 - 130 %
% Terphenyl-d14	71		%	1	07/27/18	HM	30 - 130 %
Field Extraction	Completed				07/26/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-30 (15-17 FT)
Phoenix I.D.: CA98808

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:

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
August 17, 2018
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

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	13:30
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98809

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 3.0	3.0	mg/Kg	1	07/27/18	EK	SW6010C
Arsenic	14.5	0.78	mg/Kg	1	07/27/18	EK	SW6010C
Barium	99.6	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Beryllium	0.78	0.31	mg/Kg	1	07/27/18	EK	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Chromium	13.3	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Copper	74.5	0.8	mg/kg	1	07/27/18	EK	SW6010C
Mercury	< 0.13	0.13	mg/Kg	1	07/27/18	RS	SW7471B
Nickel	10.7	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Lead	41.4	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	07/27/18	EK	SW6010C
Selenium	< 5.2	5.2	mg/Kg	1	07/27/18	EK	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	07/27/18	EK	SW6010C
Vanadium	18.8	0.39	mg/Kg	1	07/27/18	EK	SW6010C
Zinc	12.2	0.8	mg/Kg	1	07/27/18	EK	SW6010C
Percent Solid	92		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	3.17	0.54	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction for PCB	Completed				07/26/18	AA/V	SW3545A
Soil Extraction for SVOA	Completed				07/26/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	VS/VCK	SW3545A
Mercury Digestion	Completed				07/27/18	I/I	SW7471B
Total Metals Digest	Completed				07/26/18	KD/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	320	54	mg/Kg	1	07/28/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	07/28/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	98		%	1	07/28/18	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)

Phoenix I.D.: CA98809

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1221	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1232	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1242	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1248	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1254	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1260	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1262	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
PCB-1268	ND	360	ug/Kg	10	07/28/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	93		%	10	07/28/18	AW	30 - 150 %
% TCMX	81		%	10	07/28/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	3000	200	ug/Kg	50	07/28/18	JLI	SW8260C
Bromobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Bromochloromethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)

Phoenix I.D.: CA98809

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
m&p-Xylene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
o-Xylene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Styrene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	280	220	ug/Kg	50	07/28/18	JLI	SW8260C
Total Xylenes	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	07/28/18	JLI	SW8260C
Trichloroethene	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	5.9	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	113		%	1	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	85		%	1	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/28/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)

Phoenix I.D.: CA98809

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	07/27/18	HM	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthylene	770	250	ug/Kg	1	07/27/18	HM	SW8270D
Acetophenone	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Aniline	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Anthracene	990	250	ug/Kg	1	07/27/18	HM	SW8270D
Benz(a)anthracene	1700	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzidine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(a)pyrene	1300	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(b)fluoranthene	1600	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(ghi)perylene	1600	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(k)fluoranthene	1500	250	ug/Kg	1	07/27/18	HM	SW8270D
Benzoic acid	ND	720	ug/Kg	1	07/27/18	HM	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Carbazole	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Chrysene	2400	250	ug/Kg	1	07/27/18	HM	SW8270D
Dibenz(a,h)anthracene	360	250	ug/Kg	1	07/27/18	HM	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Di-n-butylphthalate	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Fluoranthene	3500	250	ug/Kg	1	07/27/18	HM	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)

Phoenix I.D.: CA98809

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	430	250	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	1400	250	ug/Kg	1	07/27/18	HM	SW8270D
Isophorone	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/27/18	HM	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
Phenanthrene	4600	250	ug/Kg	1	07/27/18	HM	SW8270D
Phenol	ND	250	ug/Kg	1	07/27/18	HM	SW8270D
Pyrene	5200	250	ug/Kg	1	07/27/18	HM	SW8270D
Pyridine	ND	360	ug/Kg	1	07/27/18	HM	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	67		%	1	07/27/18	HM	30 - 130 %
% 2-Fluorobiphenyl	67		%	1	07/27/18	HM	30 - 130 %
% 2-Fluorophenol	55		%	1	07/27/18	HM	30 - 130 %
% Nitrobenzene-d5	62		%	1	07/27/18	HM	30 - 130 %
% Phenol-d5	63		%	1	07/27/18	HM	30 - 130 %
% Terphenyl-d14	65		%	1	07/27/18	HM	30 - 130 %
Field Extraction	Completed				07/26/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-28 (1-3 FT)
Phoenix I.D.: CA98809

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 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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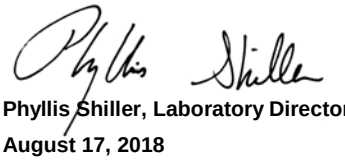

Phyllis Shiller, Laboratory Director
August 17, 2018
Reviewed and Released by: Sarah Bell, Project Manager

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

Analysis Report

August 17, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/26/18	
Location Code:	TIGHE	Received by:	SW	07/26/18	16:14
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA98805
Phoenix ID: CA98810

Project ID: ROCKVILLE MGP
Client ID: SB-28 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		07/26/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	6.55	0.48	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/26/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	VS/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	260	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	ND		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	5	07/30/18	AW	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	07/28/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-28 (22-24 FT)

Phoenix I.D.: CA98810

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
2-Chlorotoluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
4-Chlorotoluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	07/28/18	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	07/28/18	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	07/28/18	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	07/28/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Naphthalene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
n-Butylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
n-Propylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
o-Xylene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
sec-Butylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
tert-Butylbenzene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-28 (22-24 FT)

Phoenix I.D.: CA98810

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	07/28/18	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	07/28/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	106		%	1	07/28/18	JLI	70 - 130 %
% Bromofluorobenzene	90		%	1	07/28/18	JLI	70 - 130 %
% Dibromofluoromethane	111		%	1	07/28/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	07/28/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	490	240	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Acenaphthylene	2200	240	ug/Kg	1	07/27/18	HM	SW8270D
Anthracene	370	240	ug/Kg	1	07/27/18	HM	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(a)pyrene	830	240	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(b)fluoranthene	380	240	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(ghi)perylene	940	240	ug/Kg	1	07/27/18	HM	SW8270D
Benzo(k)fluoranthene	280	240	ug/Kg	1	07/27/18	HM	SW8270D
Chrysene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Fluoranthene	370	240	ug/Kg	1	07/27/18	HM	SW8270D
Fluorene	ND	240	ug/Kg	1	07/27/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	910	240	ug/Kg	1	07/27/18	HM	SW8270D
Naphthalene	620	240	ug/Kg	1	07/27/18	HM	SW8270D
Phenanthrene	370	240	ug/Kg	1	07/27/18	HM	SW8270D
Pyrene	790	240	ug/Kg	1	07/27/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	07/27/18	HM	30 - 130 %
% Nitrobenzene-d5	69		%	1	07/27/18	HM	30 - 130 %
% Terphenyl-d14	60		%	1	07/27/18	HM	30 - 130 %
Field Extraction	Completed				07/26/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-28 (22-24 FT)
Phoenix I.D.: CA98810

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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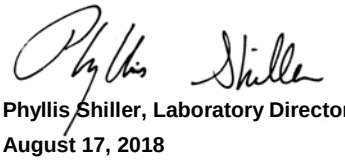

Phyllis Shiller, Laboratory Director
August 17, 2018
Reviewed and Released by: Sarah Bell, Project Manager

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

QA/QC Report

August 17, 2018

QA/QC Data

SDG I.D.: GCA98805

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 442012 (mg/L), QC Sample No: CA96215 (CA98805)														
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	96.1			99.3			75 - 125	20	
Barium	BRL	0.010	0.035	0.035	NC	104			104			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	101			103			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	99.9			102			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	99.3			99.1			75 - 125	20	
Copper	BRL	0.010	<0.010	<0.010	NC	102			103			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	99.3			99.4			75 - 125	20	
Nickel	BRL	0.010	<0.010	<0.010	NC	98.7			99.2			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	99.1			100			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.9			99.8			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	100			101			75 - 125	20	
Vanadium	BRL	0.010	<0.010	<0.010	NC	99.7			101			75 - 125	20	
Zinc	BRL	0.010	<0.010	<0.010	NC	101			102			75 - 125	20	
QA/QC Batch 442009 (mg/L), QC Sample No: CA98182 (CA98805)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	80.9			82.4			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 440636 (mg/kg), QC Sample No: CA98508 (CA98805, CA98807, CA98809)														
Mercury - Soil	BRL	0.02	<0.02	<0.03	NC	92.8	94.5	1.8	98.5			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 440577 (mg/kg), QC Sample No: CA98999 (CA98805, CA98807, CA98809)														
ICP Metals - Soil														
Antimony	BRL	3.6	<3.7	2.4	NC	82.1			92.9			75 - 125	30	
Arsenic	BRL	0.71	5.48	6.48	16.7	89.8			94.3			75 - 125	30	
Barium	BRL	0.36	151	143	5.40	86.9			84.7			75 - 125	30	
Beryllium	BRL	0.29	0.47	0.36	NC	89.3			94.8			75 - 125	30	
Cadmium	BRL	0.36	<0.37	0.69	NC	84.5			89.4			75 - 125	30	
Chromium	BRL	0.36	17.0	27.7	47.9	92.2			94.9			75 - 125	30	r
Copper	BRL	0.8	29.3	45.4	43.1	87.6			99.5			75 - 125	30	r
Lead	BRL	0.36	318	338	6.10	89.2			85.1			75 - 125	30	
Nickel	BRL	0.36	14.1	23.7	50.8	87.1			91.5			75 - 125	30	r
Selenium	BRL	1.4	<1.5	<1.6	NC	101			81.1			75 - 125	30	
Silver	BRL	0.36	<0.37	<0.40	NC	92.6			100			75 - 125	30	
Thallium	BRL	3.2	<1.5	<3.6	NC	85.8			89.0			75 - 125	30	
Vanadium	BRL	0.36	24.4	21.1	14.5	97.2			95.4			75 - 125	30	
Zinc	BRL	0.8	139	127	9.00	87.8			85.9			75 - 125	30	

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.: GCA98805

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 440581 (mg/Kg), QC Sample No: CA98176 50X (CA98805)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.53	<0.53	NC	87.8			100			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 441746 (mg/Kg), QC Sample No: CA98806 50X (CA98806)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.52	<0.52	NC	92.2			91.5			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 440745 (mg/Kg), QC Sample No: CA99405 50X (CA98807, CA98808, CA98809, CA98810)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.55	<0.55	NC	95.4			102			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.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 440642 (mg/Kg), QC Sample No: CA98514 (CA98806, CA98807, CA98808)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	86	90	4.5	97	90	7.5	60 - 120	30
% n-Pentacosane	54	%	72	77	6.7	86	80	7.2	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 440582 (ug/kg), QC Sample No: CA98597 (CA98805, CA98808, CA98810)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	63	53	17.2	54	67	21.5	30 - 130	30
Acenaphthene	ND	230	77	64	18.4	63	80	23.8	30 - 130	30
Acenaphthylene	ND	230	63	53	17.2	52	65	22.2	30 - 130	30
Anthracene	ND	230	67	56	17.9	55	69	22.6	30 - 130	30
Benz(a)anthracene	ND	230	77	64	18.4	62	79	24.1	30 - 130	30
Benzo(a)pyrene	ND	230	65	54	18.5	51	65	24.1	30 - 130	30
Benzo(b)fluoranthene	ND	230	68	56	19.4	54	70	25.8	30 - 130	30
Benzo(ghi)perylene	ND	230	63	54	15.4	46	55	17.8	30 - 130	30
Benzo(k)fluoranthene	ND	230	69	58	17.3	56	69	20.8	30 - 130	30
Chrysene	ND	230	78	65	18.2	63	81	25.0	30 - 130	30
Dibenz(a,h)anthracene	ND	230	69	58	17.3	53	62	15.7	30 - 130	30
Fluoranthene	ND	230	66	56	16.4	57	70	20.5	30 - 130	30
Fluorene	ND	230	66	55	18.2	56	70	22.2	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	64	55	15.1	48	57	17.1	30 - 130	30
Naphthalene	ND	230	63	52	19.1	53	65	20.3	30 - 130	30
Phenanthrene	ND	230	66	55	18.2	54	68	23.0	30 - 130	30
Pyrene	ND	230	65	56	14.9	58	71	20.2	30 - 130	30
% 2-Fluorobiphenyl	45	%	59	49	18.5	46	58	23.1	30 - 130	30
% Nitrobenzene-d5	42	%	58	49	16.8	52	67	25.2	30 - 130	30
% Terphenyl-d14	44	%	60	51	16.2	51	61	17.9	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 440931 (ug/kg), QC Sample No: CA98808 (CA98807 (50X) , CA98808, CA98809 (50X))										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	100	99	1.0	100	102	2.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	103	99	4.0	104	103	1.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	110	108	1.8	119	121	1.7	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	101	101	0.0	106	108	1.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	105	99	5.9	112	110	1.8	70 - 130	30
1,1-Dichloroethene	ND	5.0	106	102	3.8	89	94	5.5	70 - 130	30
1,1-Dichloropropene	ND	5.0	108	108	0.0	115	116	0.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	102	102	0.0	94	106	12.0	70 - 130	30

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	5.0	103	101	2.0	110	112	1.8	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	104	103	1.0	96	108	11.8	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	107	106	0.9	110	113	2.7	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	109	105	3.7	106	116	9.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	102	100	2.0	104	107	2.8	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	101	99	2.0	106	109	2.8	70 - 130	30
1,2-Dichloroethane	ND	5.0	99	97	2.0	104	105	1.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	104	104	0.0	112	114	1.8	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	108	107	0.9	110	113	2.7	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	100	100	0.0	104	107	2.8	70 - 130	30
1,3-Dichloropropane	ND	5.0	100	98	2.0	106	108	1.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	98	97	1.0	103	105	1.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	110	106	3.7	103	103	0.0	70 - 130	30
2-Chlorotoluene	ND	5.0	105	103	1.9	110	113	2.7	70 - 130	30
2-Hexanone	ND	25	99	95	4.1	106	106	0.0	70 - 130	30
2-Isopropyltoluene	ND	5.0	113	112	0.9	115	119	3.4	70 - 130	30
4-Chlorotoluene	ND	5.0	101	101	0.0	108	110	1.8	70 - 130	30
4-Methyl-2-pentanone	ND	25	103	101	2.0	109	110	0.9	70 - 130	30
Acetone	ND	10	85	76	11.2	89	85	4.6	70 - 130	30
Acrylonitrile	ND	5.0	104	97	7.0	112	110	1.8	70 - 130	30
Benzene	ND	1.0	104	103	1.0	112	114	1.8	70 - 130	30
Bromobenzene	ND	5.0	104	103	1.0	107	110	2.8	70 - 130	30
Bromochloromethane	ND	5.0	105	98	6.9	110	109	0.9	70 - 130	30
Bromodichloromethane	ND	5.0	104	101	2.9	101	104	2.9	70 - 130	30
Bromoform	ND	5.0	103	98	5.0	94	97	3.1	70 - 130	30
Bromomethane	ND	5.0	100	95	5.1	116	92	23.1	70 - 130	30
Carbon Disulfide	ND	5.0	112	108	3.6	87	93	6.7	70 - 130	30
Carbon tetrachloride	ND	5.0	103	100	3.0	98	97	1.0	70 - 130	30
Chlorobenzene	ND	5.0	99	97	2.0	104	107	2.8	70 - 130	30
Chloroethane	ND	5.0	106	102	3.8	121	94	25.1	70 - 130	30
Chloroform	ND	5.0	101	96	5.1	107	105	1.9	70 - 130	30
Chloromethane	ND	5.0	93	90	3.3	103	97	6.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	108	104	3.8	115	113	1.8	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	110	109	0.9	110	114	3.6	70 - 130	30
Dibromochloromethane	ND	3.0	107	105	1.9	101	104	2.9	70 - 130	30
Dibromomethane	ND	5.0	102	101	1.0	107	107	0.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	98	96	2.1	105	106	0.9	70 - 130	30
Ethylbenzene	ND	1.0	105	102	2.9	109	111	1.8	70 - 130	30
Hexachlorobutadiene	ND	5.0	101	102	1.0	96	104	8.0	70 - 130	30
Isopropylbenzene	ND	1.0	111	111	0.0	115	119	3.4	70 - 130	30
m&p-Xylene	ND	2.0	102	100	2.0	107	110	2.8	70 - 130	30
Methyl ethyl ketone	ND	5.0	95	86	9.9	104	102	1.9	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	95	91	4.3	99	102	3.0	70 - 130	30
Methylene chloride	ND	5.0	89	85	4.6	95	94	1.1	70 - 130	30
Naphthalene	ND	5.0	114	113	0.9	112	121	7.7	70 - 130	30
n-Butylbenzene	ND	1.0	107	107	0.0	106	114	7.3	70 - 130	30
n-Propylbenzene	ND	1.0	107	106	0.9	112	114	1.8	70 - 130	30
o-Xylene	ND	2.0	108	106	1.9	112	115	2.6	70 - 130	30
p-Isopropyltoluene	ND	1.0	110	110	0.0	112	117	4.4	70 - 130	30
sec-Butylbenzene	ND	1.0	112	111	0.9	114	118	3.4	70 - 130	30
Styrene	ND	5.0	109	106	2.8	112	115	2.6	70 - 130	30
tert-Butylbenzene	ND	1.0	111	108	2.7	113	116	2.6	70 - 130	30
Tetrachloroethene	ND	5.0	101	102	1.0	106	107	0.9	70 - 130	30

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrahydrofuran (THF)	ND	5.0	107	102	4.8	118	115	2.6	70 - 130	30
Toluene	ND	1.0	103	104	1.0	110	111	0.9	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	108	103	4.7	112	112	0.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	103	103	0.0	101	105	3.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	118	116	1.7	115	118	2.6	70 - 130	30
Trichloroethene	ND	5.0	104	103	1.0	109	110	0.9	70 - 130	30
Trichlorofluoromethane	ND	5.0	95	92	3.2	99	75	27.6	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	103	99	4.0	85	95	11.1	70 - 130	30
Vinyl chloride	ND	5.0	106	103	2.9	128	126	1.6	70 - 130	30
% 1,2-dichlorobenzene-d4	103	%	102	99	3.0	101	100	1.0	70 - 130	30
% Bromofluorobenzene	92	%	98	97	1.0	95	98	3.1	70 - 130	30
% Dibromofluoromethane	103	%	97	101	4.0	96	94	2.1	70 - 130	30
% Toluene-d8	102	%	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 440542 (ug/Kg), QC Sample No: CA99028 2X (CA98809)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	78	92	16.5	82	89	8.2	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	90	105	15.4	88	95	7.7	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	90	%	92	110	17.8	87	96	9.8	30 - 150	30
% TCMX (Surrogate Rec)	85	%	83	100	18.6	82	92	11.5	30 - 150	30

QA/QC Batch 440584 (ug/kg), QC Sample No: CA99033 (CA98807, CA98809)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	66	62	6.3	62	56	10.2	30 - 130	30
1,2,4-Trichlorobenzene	ND	230	64	63	1.6	63	57	10.0	30 - 130	30
1,2-Dichlorobenzene	ND	180	60	59	1.7	58	52	10.9	30 - 130	30
1,2-Diphenylhydrazine	ND	230	70	66	5.9	67	61	9.4	30 - 130	30
1,3-Dichlorobenzene	ND	230	58	58	0.0	56	49	13.3	30 - 130	30
1,4-Dichlorobenzene	ND	230	58	58	0.0	56	50	11.3	30 - 130	30
2,4,5-Trichlorophenol	ND	230	80	77	3.8	73	68	7.1	30 - 130	30
2,4,6-Trichlorophenol	ND	130	79	74	6.5	73	67	8.6	30 - 130	30
2,4-Dichlorophenol	ND	130	75	71	5.5	69	63	9.1	30 - 130	30
2,4-Dimethylphenol	ND	230	81	76	6.4	65	58	11.4	30 - 130	30
2,4-Dinitrophenol	ND	230	12	<10	NC	31	42	30.1	30 - 130	30
2,4-Dinitrotoluene	ND	130	78	74	5.3	77	71	8.1	30 - 130	30
2,6-Dinitrotoluene	ND	130	79	74	6.5	76	70	8.2	30 - 130	30
2-Chloronaphthalene	ND	230	75	72	4.1	70	64	9.0	30 - 130	30
2-Chlorophenol	ND	230	69	68	1.5	66	61	7.9	30 - 130	30
2-Methylnaphthalene	ND	230	68	64	6.1	64	59	8.1	30 - 130	30
2-Methylphenol (o-cresol)	ND	230	73	70	4.2	65	60	8.0	30 - 130	30
2-Nitroaniline	ND	330	117	109	7.1	106	97	8.9	30 - 130	30
2-Nitrophenol	ND	230	74	72	2.7	73	66	10.1	30 - 130	30
3&4-Methylphenol (m&p-cresol)	ND	230	77	74	4.0	69	62	10.7	30 - 130	30
3,3'-Dichlorobenzidine	ND	130	80	73	9.2	71	73	2.8	30 - 130	30

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
3-Nitroaniline	ND	330	97	90	7.5	93	86	7.8	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	31	23	29.6	51	56	9.3	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	77	72	6.7	73	68	7.1	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	81	75	7.7	75	70	6.9	30 - 130	30	
4-Chloroaniline	ND	230	74	73	1.4	70	65	7.4	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	78	73	6.6	75	67	11.3	30 - 130	30	
4-Nitroaniline	ND	230	82	78	5.0	77	71	8.1	30 - 130	30	
4-Nitrophenol	ND	230	85	78	8.6	77	72	6.7	30 - 130	30	
Acenaphthene	ND	230	79	74	6.5	75	69	8.3	30 - 130	30	
Acenaphthylene	ND	130	74	69	7.0	68	62	9.2	30 - 130	30	
Acetophenone	ND	230	62	60	3.3	60	55	8.7	30 - 130	30	
Aniline	ND	330	55	54	1.8	42	36	15.4	30 - 130	30	
Anthracene	ND	230	79	74	6.5	73	69	5.6	30 - 130	30	
Benz(a)anthracene	ND	230	79	73	7.9	73	67	8.6	30 - 130	30	
Benzidine	ND	330	56	50	11.3	16	15	6.5	30 - 130	30	m
Benzo(a)pyrene	ND	130	74	69	7.0	69	63	9.1	30 - 130	30	
Benzo(b)fluoranthene	ND	160	79	74	6.5	75	67	11.3	30 - 130	30	
Benzo(ghi)perylene	ND	230	76	70	8.2	70	64	9.0	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81	78	3.8	74	70	5.6	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	46	38	19.0	30 - 130	30	l
Benzyl butyl phthalate	ND	230	81	75	7.7	77	71	8.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	74	70	5.6	70	64	9.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	60	59	1.7	64	59	8.1	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	60	58	3.4	58	53	9.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	87	81	7.1	81	74	9.0	30 - 130	30	
Carbazole	ND	230	79	74	6.5	73	67	8.6	30 - 130	30	
Chrysene	ND	230	81	74	9.0	74	68	8.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	81	74	9.0	75	67	11.3	30 - 130	30	
Dibenzofuran	ND	230	76	71	6.8	69	63	9.1	30 - 130	30	
Diethyl phthalate	ND	230	79	73	7.9	74	67	9.9	30 - 130	30	
Dimethylphthalate	ND	230	80	74	7.8	74	67	9.9	30 - 130	30	
Di-n-butylphthalate	ND	670	86	81	6.0	78	72	8.0	30 - 130	30	
Di-n-octylphthalate	ND	230	84	77	8.7	80	72	10.5	30 - 130	30	
Fluoranthene	ND	230	80	75	6.5	74	69	7.0	30 - 130	30	
Fluorene	ND	230	77	74	4.0	73	67	8.6	30 - 130	30	
Hexachlorobenzene	ND	130	80	75	6.5	74	67	9.9	30 - 130	30	
Hexachlorobutadiene	ND	230	65	62	4.7	62	55	12.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	59	57	3.4	58	52	10.9	30 - 130	30	
Hexachloroethane	ND	130	58	57	1.7	55	49	11.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	75	70	6.9	71	64	10.4	30 - 130	30	
Isophorone	ND	130	67	63	6.2	63	58	8.3	30 - 130	30	
Naphthalene	ND	230	66	65	1.5	64	59	8.1	30 - 130	30	
Nitrobenzene	ND	130	68	69	1.5	69	64	7.5	30 - 130	30	
N-Nitrosodimethylamine	ND	230	59	60	1.7	61	57	6.8	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	74	72	2.7	71	66	7.3	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	80	74	7.8	70	63	10.5	30 - 130	30	
Pentachloronitrobenzene	ND	230	73	68	7.1	66	63	4.7	30 - 130	30	
Pentachlorophenol	ND	230	67	61	9.4	66	61	7.9	30 - 130	30	
Phenanthrene	ND	130	78	72	8.0	73	66	10.1	30 - 130	30	
Phenol	ND	230	73	72	1.4	68	62	9.2	30 - 130	30	
Pyrene	ND	230	82	76	7.6	76	70	8.2	30 - 130	30	
Pyridine	ND	230	40	41	2.5	42	38	10.0	30 - 130	30	
% 2,4,6-Tribromophenol	66	%	77	73	5.3	69	65	6.0	30 - 130	30	

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% 2-Fluorobiphenyl	66	%	68	65	4.5	63	57	10.0	30 - 130	30
% 2-Fluorophenol	56	%	63	62	1.6	60	56	6.9	30 - 130	30
% Nitrobenzene-d5	58	%	61	60	1.7	60	57	5.1	30 - 130	30
% Phenol-d5	63	%	71	68	4.3	65	61	6.3	30 - 130	30
% Terphenyl-d14	70	%	73	68	7.1	68	63	7.6	30 - 130	30

Comment:

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

QA/QC Batch 440643 (mg/Kg), QC Sample No: CA99145 (CA98809, CA98810)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	67	63	6.2	75	72	4.1	60 - 120	30
% n-Pentacosane	68	%	73	67	8.6	76	78	2.6	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.

QA/QC Batch 440922 (ug/kg), QC Sample No: CA99355 (CA98807, CA98809, CA98810)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	111	102	8.5	100	95	5.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	113	100	12.2	102	97	5.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	112	101	10.3	108	104	3.8	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	110	98	11.5	99	96	3.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	106	96	9.9	106	100	5.8	70 - 130	30
1,1-Dichloroethene	ND	5.0	119	106	11.6	96	93	3.2	70 - 130	30
1,1-Dichloropropene	ND	5.0	121	107	12.3	108	107	0.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	110	101	8.5	104	100	3.9	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	106	95	10.9	103	99	4.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	113	103	9.3	105	102	2.9	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	117	105	10.8	109	105	3.7	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	112	101	10.3	105	100	4.9	70 - 130	30
1,2-Dibromoethane	ND	5.0	111	101	9.4	102	94	8.2	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	109	98	10.6	103	99	4.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	107	94	12.9	98	94	4.2	70 - 130	30
1,2-Dichloropropane	ND	5.0	112	98	13.3	105	102	2.9	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	118	106	10.7	109	105	3.7	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	109	99	9.6	102	99	3.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	107	98	8.8	103	96	7.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	106	97	8.9	100	96	4.1	70 - 130	30
2,2-Dichloropropane	ND	5.0	119	106	11.6	102	97	5.0	70 - 130	30
2-Chlorotoluene	ND	5.0	113	102	10.2	107	104	2.8	70 - 130	30
2-Hexanone	ND	25	95	85	11.1	92	88	4.4	70 - 130	30
2-Isopropyltoluene	ND	5.0	125	112	11.0	115	111	3.5	70 - 130	30
4-Chlorotoluene	ND	5.0	110	98	11.5	105	101	3.9	70 - 130	30
4-Methyl-2-pentanone	ND	25	99	88	11.8	96	94	2.1	70 - 130	30
Acetone	ND	10	76	65	15.6	84	75	11.3	70 - 130	30
Acrylonitrile	ND	5.0	97	87	10.9	103	95	8.1	70 - 130	30
Benzene	ND	1.0	114	101	12.1	105	103	1.9	70 - 130	30
Bromobenzene	ND	5.0	114	102	11.1	105	101	3.9	70 - 130	30
Bromochloromethane	ND	5.0	109	97	11.7	102	97	5.0	70 - 130	30
Bromodichloromethane	ND	5.0	113	101	11.2	99	96	3.1	70 - 130	30
Bromoform	ND	5.0	112	101	10.3	95	90	5.4	70 - 130	30
Bromomethane	ND	5.0	115	103	11.0	87	79	9.6	70 - 130	30
Carbon Disulfide	ND	5.0	122	109	11.3	97	97	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon tetrachloride	ND	5.0	114	100	13.1	97	95	2.1	70 - 130	30
Chlorobenzene	ND	5.0	109	99	9.6	101	97	4.0	70 - 130	30
Chloroethane	ND	5.0	114	99	14.1	94	88	6.6	70 - 130	30
Chloroform	ND	5.0	106	95	10.9	102	96	6.1	70 - 130	30
Chloromethane	ND	5.0	93	81	13.8	97	92	5.3	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	112	100	11.3	107	102	4.8	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	120	106	12.4	103	101	2.0	70 - 130	30
Dibromochloromethane	ND	3.0	119	108	9.7	103	96	7.0	70 - 130	30
Dibromomethane	ND	5.0	109	98	10.6	100	96	4.1	70 - 130	30
Dichlorodifluoromethane	ND	5.0	118	103	13.6	107	104	2.8	70 - 130	30
Ethylbenzene	ND	1.0	114	103	10.1	106	101	4.8	70 - 130	30
Hexachlorobutadiene	ND	5.0	118	105	11.7	106	101	4.8	70 - 130	30
Isopropylbenzene	ND	1.0	121	109	10.4	113	108	4.5	70 - 130	30
m&p-Xylene	ND	2.0	113	102	10.2	104	100	3.9	70 - 130	30
Methyl ethyl ketone	ND	5.0	84	74	12.7	89	82	8.2	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	102	91	11.4	95	90	5.4	70 - 130	30
Methylene chloride	ND	5.0	97	86	12.0	90	88	2.2	70 - 130	30
Naphthalene	ND	5.0	122	110	10.3	114	110	3.6	70 - 130	30
n-Butylbenzene	ND	1.0	118	105	11.7	111	108	2.7	70 - 130	30
n-Propylbenzene	ND	1.0	118	105	11.7	109	107	1.9	70 - 130	30
o-Xylene	ND	2.0	120	107	11.5	110	104	5.6	70 - 130	30
p-Isopropyltoluene	ND	1.0	122	110	10.3	112	109	2.7	70 - 130	30
sec-Butylbenzene	ND	1.0	123	110	11.2	114	110	3.6	70 - 130	30
Styrene	ND	5.0	119	107	10.6	110	104	5.6	70 - 130	30
tert-Butylbenzene	ND	1.0	123	109	12.1	111	107	3.7	70 - 130	30
Tetrachloroethene	ND	5.0	118	103	13.6	102	99	3.0	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	97	86	12.0	106	97	8.9	70 - 130	30
Toluene	ND	1.0	114	101	12.1	104	102	1.9	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	120	107	11.5	105	103	1.9	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	112	99	12.3	95	93	2.1	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	120	106	12.4	102	97	5.0	70 - 130	30
Trichloroethene	ND	5.0	118	104	12.6	102	101	1.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	105	92	13.2	90	87	3.4	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	121	105	14.2	96	93	3.2	70 - 130	30
Vinyl chloride	ND	5.0	111	99	11.4	116	111	4.4	70 - 130	30
% 1,2-dichlorobenzene-d4	103	%	99	100	1.0	102	100	2.0	70 - 130	30
% Bromofluorobenzene	93	%	99	99	0.0	99	97	2.0	70 - 130	30
% Dibromofluoromethane	103	%	99	98	1.0	99	98	1.0	70 - 130	30
% Toluene-d8	102	%	102	102	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 441070 (ug/kg), QC Sample No: CB00642 (CA98806 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	103	101	2.0	94	92	2.2	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	99	96	3.1	89	90	1.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	98	99	1.0	96	95	1.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	99	3.1	90	91	1.1	70 - 130	30
1,1-Dichloroethane	ND	5.0	99	99	0.0	94	94	0.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	101	98	3.0	86	86	0.0	70 - 130	30
1,1-Dichloropropene	ND	5.0	99	96	3.1	94	93	1.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	87	90	3.4	96	94	2.1	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	97	96	1.0	91	89	2.2	70 - 130	30

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,4-Trichlorobenzene	ND	5.0	80	83	3.7	92	85	7.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	93	91	2.2	96	91	5.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	103	108	4.7	114	101	12.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	97	99	2.0	92	91	1.1	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	91	90	1.1	92	89	3.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	101	100	1.0	95	96	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	98	97	1.0	95	94	1.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	93	90	3.3	95	91	4.3	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	90	90	0.0	92	89	3.3	70 - 130	30	
1,3-Dichloropropane	ND	5.0	98	93	5.2	92	90	2.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	87	87	0.0	88	86	2.3	70 - 130	30	
2,2-Dichloropropane	ND	5.0	99	97	2.0	89	87	2.3	70 - 130	30	
2-Chlorotoluene	ND	5.0	93	90	3.3	94	90	4.3	70 - 130	30	
2-Hexanone	ND	25	89	91	2.2	79	79	0.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	100	96	4.1	101	97	4.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	89	88	1.1	92	87	5.6	70 - 130	30	
4-Methyl-2-pentanone	ND	25	96	98	2.1	89	89	0.0	70 - 130	30	
Acetone	ND	10	74	79	6.5	63	70	10.5	70 - 130	30	m
Acrylonitrile	ND	5.0	104	109	4.7	98	98	0.0	70 - 130	30	
Benzene	ND	1.0	98	95	3.1	94	93	1.1	70 - 130	30	
Bromobenzene	ND	5.0	95	95	0.0	95	92	3.2	70 - 130	30	
Bromochloromethane	ND	5.0	97	96	1.0	90	88	2.2	70 - 130	30	
Bromodichloromethane	ND	5.0	101	101	0.0	91	92	1.1	70 - 130	30	
Bromoform	ND	5.0	108	108	0.0	87	86	1.2	70 - 130	30	
Bromomethane	ND	5.0	92	88	4.4	91	87	4.5	70 - 130	30	
Carbon Disulfide	ND	5.0	107	102	4.8	89	88	1.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	100	98	2.0	88	87	1.1	70 - 130	30	
Chlorobenzene	ND	5.0	96	93	3.2	92	90	2.2	70 - 130	30	
Chloroethane	ND	5.0	101	96	5.1	95	92	3.2	70 - 130	30	
Chloroform	ND	5.0	95	94	1.1	89	89	0.0	70 - 130	30	
Chloromethane	ND	5.0	94	92	2.2	88	88	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	96	96	0.0	92	90	2.2	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	101	100	1.0	91	92	1.1	70 - 130	30	
Dibromochloromethane	ND	3.0	107	106	0.9	92	93	1.1	70 - 130	30	
Dibromomethane	ND	5.0	99	99	0.0	93	92	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	96	95	1.0	89	87	2.3	70 - 130	30	
Ethylbenzene	ND	1.0	98	94	4.2	95	93	2.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	88	85	3.5	91	89	2.2	70 - 130	30	
Isopropylbenzene	ND	1.0	93	90	3.3	94	91	3.2	70 - 130	30	
m&p-Xylene	ND	2.0	94	91	3.2	92	90	2.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	92	1.1	82	78	5.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	90	92	2.2	84	82	2.4	70 - 130	30	
Methylene chloride	ND	5.0	95	91	4.3	84	83	1.2	70 - 130	30	
Naphthalene	ND	5.0	98	103	5.0	110	105	4.7	70 - 130	30	
n-Butylbenzene	ND	1.0	92	91	1.1	96	92	4.3	70 - 130	30	
n-Propylbenzene	ND	1.0	92	90	2.2	92	90	2.2	70 - 130	30	
o-Xylene	ND	2.0	98	95	3.1	97	95	2.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	94	91	3.2	96	93	3.2	70 - 130	30	
sec-Butylbenzene	ND	1.0	97	94	3.1	98	95	3.1	70 - 130	30	
Styrene	ND	5.0	97	95	2.1	95	92	3.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	96	93	3.2	97	93	4.2	70 - 130	30	
Tetrachloroethene	ND	5.0	97	95	2.1	94	94	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	93	98	5.2	86	86	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Toluene	ND	1.0	101	100	1.0	96	95	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	108	94	13.9	94	95	1.1	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	95	96	1.0	88	88	0.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	102	105	2.9	88	89	1.1	70 - 130	30
Trichloroethene	ND	5.0	100	98	2.0	95	94	1.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	94	90	4.3	89	85	4.6	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	101	97	4.0	90	88	2.2	70 - 130	30
Vinyl chloride	ND	5.0	98	95	3.1	85	84	1.2	70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	101	1.0	101	100	1.0	70 - 130	30
% Bromofluorobenzene	96	%	103	102	1.0	102	102	0.0	70 - 130	30
% Dibromofluoromethane	95	%	101	102	1.0	93	93	0.0	70 - 130	30
% Toluene-d8	95	%	102	103	1.0	100	103	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 441636 (ug/kg), QC Sample No: CB04593 (CA98806)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	62	61	1.6	58	64	9.8	30 - 130	30
Acenaphthene	ND	230	66	67	1.5	62	70	12.1	30 - 130	30
Acenaphthylene	ND	230	62	63	1.6	59	66	11.2	30 - 130	30
Anthracene	ND	230	69	68	1.5	65	72	10.2	30 - 130	30
Benz(a)anthracene	ND	230	69	69	0.0	66	73	10.1	30 - 130	30
Benzo(a)pyrene	ND	230	66	65	1.5	63	70	10.5	30 - 130	30
Benzo(b)fluoranthene	ND	230	70	69	1.4	65	73	11.6	30 - 130	30
Benzo(ghi)perylene	ND	230	64	62	3.2	59	66	11.2	30 - 130	30
Benzo(k)fluoranthene	ND	230	70	69	1.4	65	72	10.2	30 - 130	30
Chrysene	ND	230	66	65	1.5	62	67	7.8	30 - 130	30
Dibenz(a,h)anthracene	ND	230	66	65	1.5	61	69	12.3	30 - 130	30
Fluoranthene	ND	230	71	71	0.0	67	76	12.6	30 - 130	30
Fluorene	ND	230	67	68	1.5	64	72	11.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	59	58	1.7	56	62	10.2	30 - 130	30
Naphthalene	ND	230	61	59	3.3	57	63	10.0	30 - 130	30
Phenanthrene	ND	230	64	64	0.0	60	67	11.0	30 - 130	30
Pyrene	ND	230	70	71	1.4	68	76	11.1	30 - 130	30
% 2-Fluorobiphenyl	56	%	56	57	1.8	54	60	10.5	30 - 130	30
% Nitrobenzene-d5	41	%	44	48	8.7	45	57	23.5	30 - 130	30
% Terphenyl-d14	60	%	62	62	0.0	60	66	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 441761 (ug/Kg), QC Sample No: CB04784 2X (CA98805)

Pesticides - Soil

4,4' -DDD	ND	1.7	73	81	10.4	63	59	6.6	40 - 140	30
4,4' -DDE	ND	1.7	73	78	6.6	64	61	4.8	40 - 140	30
4,4' -DDT	ND	1.7	77	84	8.7	66	62	6.3	40 - 140	30
a-BHC	ND	1.0	70	79	12.1	61	60	1.7	40 - 140	30
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30
Aldrin	ND	1.0	73	80	9.2	64	60	6.5	40 - 140	30
b-BHC	ND	1.0	74	81	9.0	65	64	1.6	40 - 140	30
Chlordane	ND	33	74	83	11.5	65	64	1.6	40 - 140	30
d-BHC	ND	3.3	74	81	9.0	62	59	5.0	40 - 140	30
Dieldrin	ND	1.0	76	84	10.0	65	62	4.7	40 - 140	30
Endosulfan I	ND	3.3	80	91	12.9	68	65	4.5	40 - 140	30

QA/QC Data

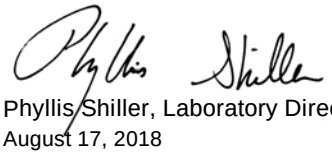
SDG I.D.: GCA98805

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Endosulfan II	ND	3.3	78	86	9.8	67	64	4.6	40 - 140	30	
Endosulfan sulfate	ND	3.3	74	81	9.0	64	61	4.8	40 - 140	30	
Endrin	ND	3.3	79	88	10.8	69	66	4.4	40 - 140	30	
Endrin aldehyde	ND	3.3	72	79	9.3	63	59	6.6	40 - 140	30	
Endrin ketone	ND	3.3	78	85	8.6	63	67	6.2	40 - 140	30	
g-BHC	ND	1.0	71	80	11.9	62	62	0.0	40 - 140	30	
Heptachlor	ND	3.3	70	80	13.3	63	62	1.6	40 - 140	30	
Heptachlor epoxide	ND	3.3	74	80	7.8	63	62	1.6	40 - 140	30	
Methoxychlor	ND	3.3	79	88	10.8	68	121	56.1	40 - 140	30	r
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	86	%	74	83	11.5	70	68	2.9	30 - 150	30	
% TCMX	82	%	72	78	8.0	66	65	1.5	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
August 17, 2018

Friday, August 17, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98805 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA98805	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1300	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	760	360	360	ug/Kg
CA98805	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	1500	200	200	ug/Kg
CA98805	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	2900	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1300	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	9400	1000	8400	8400	ug/Kg
CA98805	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	6800	1300	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	200	200	ug/Kg
CA98805	$8270-SMR	N-Nitrosodimethylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	760	200	200	ug/Kg
CA98805	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	760	200	200	ug/Kg
CA98805	$8270-SMR	2,6-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1200	900	900	ug/Kg
CA98805	$8270-SMR	2,4-Dinitrotoluene	CT / RSR DEC RES (mg/kg) / APS Organics	ND	1500	900	900	ug/Kg
CA98805	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2000	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2900	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3000	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	9400	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1300	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	6800	1300	1000	1000	ug/Kg
CA98805	$8270-SMR	4-Chloroaniline	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
CA98805	$8270-SMR	2,4-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
CA98805	$8270-SMR	2,6-Dinitrotoluene	CT / RSR GB (mg/kg) / APS Organics	ND	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzidine	CT / RSR GB (mg/kg) / APS Organics	ND	1500	1000	1000	ug/Kg
CA98805	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3000	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	2900	1200	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3000	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2000	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3200	1000	1000	1000	ug/Kg
CA98805	$8270-SMR	Pentachlorophenol	CT / RSR GB (mg/kg) / Semivolatiles	ND	1400	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	5500	260	1000	1000	ug/Kg
CA98806	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6800	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5500	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2300	260	1000	1000	ug/Kg
CA98806	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	5900	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2000	260	1000	1000	ug/Kg
CA98806	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1900	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	6800	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2900	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2300	260	1000	1000	ug/Kg
CA98806	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	5500	260	1000	1000	ug/Kg
CA98806	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	40	7	7	ug/Kg

Friday, August 17, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA98805 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA98806	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	80	40	40	ug/Kg
CA98806	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC I/C (mg/kg) / Pest/PCB/TPH	6600	290	2500	2500	mg/Kg
CA98806	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	6600	290	500	500	mg/Kg
CA98806	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GB (mg/kg) / Pesticides/TPH	6600	290	2500	2500	mg/Kg
CA98807	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2100	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	2100	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	3300	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3100	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3100	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2900	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	1900	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1900	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1900	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2400	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2400	260	1000	1000	ug/Kg
CA98807	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2300	260	1000	1000	ug/Kg
CA98807	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	760	280	500	500	mg/Kg
CA98808	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	710	270	500	500	mg/Kg
CA98809	$8260MAR	Benzene	CT / RSR GB (mg/kg) / Volatiles	3000	200	200	200	ug/Kg
CA98809	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	1300	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1400	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1600	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1300	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1700	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1600	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2400	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1400	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1300	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1600	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CA98809	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1700	250	1000	1000	ug/Kg
CA98809	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	14.5	0.78	10	10	mg/Kg
CA98809	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.5	0.78	10	10	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

Laboratory Sample ID(s): CA98805-CA98810 ***Sampling Date(s):*** 7/26/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8081, 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, PEST Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

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

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

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

Printed Name: Maryam Taylor **Date:** Friday, August 17, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

SDG Comments

8270 Semi-volatile Organics:(CA98806, CA98808, CA98810)
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.

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.

Cyanide Narration

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

Instrument:

LACHAT 07/27/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/27/18

CA98805

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 07/30/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/30/18

CA98807, CA98808, CA98809, CA98810

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 08/06/18-1 Dustin Harrison, Greg Danielewski, Chemist 08/06/18

CA98806

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.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

Cyanide Narration

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

QC (Batch Specific):

Batch 440581 (CA98176)

CA98805

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

Batch 440745 (CA99405)

CA98807, CA98808, CA98809, CA98810

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

QC (Site Specific):

Batch 441746 (CA98806)

CA98806

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

ETPH Narration

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

Instrument:

AU-FID21 07/30/18-1 Jeff Bucko, Chemist 07/30/18

CA98806, CA98807, CA98808, CA98810

The initial calibration (ETPH620I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/27/18-1 Jeff Bucko, Chemist 07/27/18

CA98809

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 440642 (CA98514)

CA98806, CA98807, CA98808

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 440643 (CA99145)

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

ETPH Narration

CA98809, CA98810

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 07/27/18 07:20 Rick Schweitzer, Chemist 07/27/18

CA98805, CA98807, CA98809

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 08/07/18 08:24 Rick Schweitzer, Chemist 08/07/18

CA98805

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 440636 (CA98508)

CA98805, CA98807, CA98809

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

Batch 442009 (CA98182)

CA98805

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%.

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Certification Report

August 17, 2018

SDG I.D.: GCA98805

Mercury Narration

ICP Metals Narration

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

QC Batch 440577 (Samples: CA98805, CA98807, CA98809): -----

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

Instrument:

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

CA98805, CA98807, CA98809

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

BLUE 08/07/18 13:40 Emily Kolominskaya, Chemist 08/07/18

CA98805

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 440577 (CA98999)

CA98805, CA98807, CA98809

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

Batch 442012 (CA96215)

CA98805

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 07/27/18-1 Adam Werner, Chemist 07/27/18

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RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

PCB Narration

CA98809

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

QC (Batch Specific):

Batch 440542 (CA99028)

CA98809

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

PEST Narration

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

QC Batch 441761 (Samples: CA98805): -----

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

Instrument:

AU-ECD7 08/13/18-1 Carol Wohlmuth, Chemist 08/13/18

CA98805

The initial calibration (PS716AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS716BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CA98805
Preceding CC 813A005 - None.
Succeeding CC 813A018 - Endosulfan II 24%H (20%)

QC (Batch Specific):

Batch 441761 (CB04784)

CA98805

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

August 17, 2018

SDG I.D.: GCA98805

SVOA Narration

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

QC Batch 440584 (Samples: CA98807, CA98809): -----

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

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

Instrument:

CHEM07 08/04/18-1 Matt Richard, Chemist 08/04/18

CA98806

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

Initial Calibration Verification (CHEM07/bn_0802):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Benzo(a)pyrene 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 (CHEM07/0804_02A-bn_0802):
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: % Nitrobenzene-d5 43%L (30%)
The following compounds did not meet maximum % deviations: % Nitrobenzene-d5 43%L (40%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM07 08/05/18-1 Matt Richard, Chemist 08/05/18

CA98806

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

Initial Calibration Verification (CHEM07/bn_0802):
95% 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 (CHEM07/0805_02A-bn_0802):
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: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

SVOA Narration

CHEM07 08/06/18-1 Harry Mullin, Chemist 08/06/18

CA98806

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

Initial Calibration Verification (CHEM07/bn_0802):
95% 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 (CHEM07/0806_05-bn_0802):
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: 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 07/26/18-1 Keith Aloisa, Chemist 07/26/18

CA98807, CA98809

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

Continuing Calibration Verification (CHEM27/0726_31-SPLIT_0726):
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 0.050 (0.1), Hexachlorobenzene 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM29 07/26/18-1 Keith Aloisa, Chemist 07/26/18

CA98805, CA98808, CA98810

Initial Calibration Verification (CHEM29/SPLIT_0726):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 37% (20%), 2,4-Dinitrotoluene 24% (20%), 4,6-Dinitro-2-methylphenol 39% (20%), 4-Nitrophenol 23% (20%), Di-n-octylphthalate 21% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.043 (0.1), Hexachlorobenzene 0.081 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0726_31-SPLIT_0726):

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RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

SVOA 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: 2-Nitrophenol 0.044 (0.1), Hexachlorobenzene 0.077 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 440582 (CA98597)

CA98805, CA98808, CA98810

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%)

Batch 440584 (CA99033)

CA98807, CA98809

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(12%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(23%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 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 441636 (CB04593)

CA98806

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%)

VOA Narration

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

QC Batch 440922 (Samples: CA98807, CA98809, CA98810): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Acetone)

Instrument:

CHEM14 07/30/18-3 Jane Li, Chemist 07/30/18

CA98806

Initial Calibration Verification (CHEM14/VT-0730):

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RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

VOA Narration

98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 22% (20%), Chloroethane 21% (20%)
The following compounds did not meet recommended response factors: Acetone 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0730_45-VT-0730):
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 07/27/18-2 Jane Li, Chemist 07/27/18

CA98807, CA98809, CA98810

Initial Calibration Verification (CHEM26/VT-0726):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 26% (20%), Methylene chloride 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 (CHEM26/0727_34-VT-0726):
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 07/28/18-1 Jane Li, Chemist 07/28/18

CA98807, CA98808, CA98809

Initial Calibration Verification (CHEM26/VT-0726):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 26% (20%), Methylene chloride 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 (CHEM26/0728_02-VT-0726):
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 440922 (CA99355)

CA98807, CA98809, CA98810

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RCP Certification Report

August 17, 2018

SDG I.D.: GCA98805

VOA Narration

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(65%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 441070 (CB00642)

CA98806

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

QC (Site Specific):

Batch 440931 (CA98808)

CA98807, CA98808, CA98809

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

Temperature Narration

The samples were received at 4.1C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 4.1 C Pg 1 of 1

Contact Options:
[ ] Fax:
[ ] Phone:
[x] Email: Lynn.Hayes@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middletown CT

Project: Roxbury MGP
Report to: Lynn Hayes
Invoice to: Tighe + Bond

Project P.O: 14-0755-948

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/26/14

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	PAH	TCLP	TCLP (circle)	SVOCs	Cyanide	RCRA 8 Metals	PCBs	Soil VOA Vials [x] methanol [x] H2O	GL Soil container ( ) 1oz	GL Soil container ( ) 1oz	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
98805	SB-31 (1-3 ft)	S	7/26/14	09:30		X		X		X			3	1								
98806	SB-31 (15-17 ft)			09:45	X		X						3	1								
98807	SB-30 (2-4 ft)			11:00	X		X	X	X	X			3	1								
98808	SB-30 (15-17 ft)			12:00	X	X	X	X					3	1								
98809	SB-29 (1-3 ft)			13:30	X		X	X	X	X	X		3	1								
98810	SB-29 (22-24 ft)				X	X	X	X					3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/26/14	16:10

Comments, Special Requirements or Regulations:

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
[ ] 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
[ ] 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 22
Page 576 of 1282

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, August 02, 2018 5:18 PM
To: Client Services
Cc: Benjamin P. Caswell
Subject: Additional Analyses Rockville MGP
Attachments: SB 31, 28 addl analysis.pdf

Hi there Phoenix:

I need the additional analysis for the following samples.

- SB-31 (1-3): change PAH to SVOC, add pesticides (98805)
- SB-31 (15-17): add PAHs and TCN (98806)
- SB-29 (3-5) : add PAHs, ETPH and Pesticides

Thanks.

Lynn E. Willey, P.G., 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



Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Monday, August 06, 2018 2:02 PM
To: Sarah Bell
Cc: Lynn E. Willey
Subject: Additional Requests - Rockville MGP

Hi Sarah,

Thank you for getting the prelim data over. Can you please activate the following samples:

Phoenix ID	T&B ID	Analysis
GCA98180	SB-55 (2-4 ft)	PCBs
GCA98177	SB-57 (2-4 ft)	PCBs
GCA98182	SB-54 (2-4 ft)	SPLP RSR Metals
GCA98176	SB-58 (0.5-2 ft)	SPLP RSR Metals
GCA98805	SB-31 (1-3 ft)	SPLP RSR Metals

Just a note the two samples for PCBs are out of hold time starting tomorrow.

Thank you,
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn

Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Friday, August 03, 2018 10:27 AM
To: Sarah Bell
Subject: Rockville MGP sample additions and prelim data

Good morning Sarah,

Can you please make the following changes:

SB-29 (3-5 ft) [99810]: Change PAH to SVOC
SB-30 (2-4 ft) [98807]: Add total cyanide
SB-32 (2-4 ft) [96215]: Add SPLP RCP Metals

Also is there any preliminary metals data available for GCA98805, GCA99810 and/or GCA 98174? We need to select some additional samples for SPLP metals within those delivery groups. I am also looking for ETPH data from GCA9817 so we can select two samples for PCB analysis.

Thank you!
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
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PHOENIX
Environmental Laboratories, Inc.

Friday, August 10, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA99810 - CA99813

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 10, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/27/18	8:30
Location Code:	TIGHE-DAS	Received by:	SW	07/27/18	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA99810
Phoenix ID: CA99810

Project ID: ROCKVILLE MGP
Client ID: SB-29 (3-5 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		08/03/18	Q	SW846-%Solid
Soil Extraction for Pesticide	Completed				08/03/18	JJ/V	SW3545A
Soil Extraction for SVOA	Completed				08/06/18	NT/CKV	SW3545A
Extraction of CT ETPH	Completed				08/03/18	AA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	520	520	mg/Kg	10	08/04/18	AW	CTETPH 8015D
Identification	ND		mg/Kg	10	08/04/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	10	08/04/18	AW	50 - 150 %
Pesticides							
4,4' -DDD	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
4,4' -DDE	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
4,4' -DDT	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
a-BHC	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Alachlor	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Aldrin	ND	3.5	ug/Kg	2	08/09/18	CW	SW8081B
b-BHC	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Chlordane	ND	35	ug/Kg	2	08/09/18	CW	SW8081B
d-BHC	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Dieldrin	ND	3.5	ug/Kg	2	08/09/18	CW	SW8081B
Endosulfan I	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Endosulfan II	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Endosulfan sulfate	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Endrin	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Endrin aldehyde	ND	15	ug/Kg	2	08/09/18	CW	SW8081B
Endrin ketone	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B

Project ID: ROCKVILLE MGP
Client ID: SB-29 (3-5 FT)

Phoenix I.D.: CA99810

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
g-BHC	ND	1.4	ug/Kg	2	08/09/18	CW	SW8081B
Heptachlor	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Heptachlor epoxide	ND	6.9	ug/Kg	2	08/09/18	CW	SW8081B
Methoxychlor	ND	35	ug/Kg	2	08/09/18	CW	SW8081B
Toxaphene	ND	140	ug/Kg	2	08/09/18	CW	SW8081B
QA/QC Surrogates							
% DCBP	39		%	2	08/09/18	CW	30 - 150 %
% TCMX	59		%	2	08/09/18	CW	30 - 150 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,4-Dichlorophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,4-Dimethylphenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,4-Dinitrophenol	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2-Chloronaphthalene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2-Chlorophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2-Methylnaphthalene	730	480	ug/Kg	2	08/08/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
2-Nitroaniline	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
2-Nitrophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
3-Nitroaniline	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
4-Chloroaniline	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
4-Nitroaniline	ND	1100	ug/Kg	2	08/08/18	KCA	SW8270D
4-Nitrophenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Acenaphthene	710	480	ug/Kg	2	08/08/18	KCA	SW8270D
Acenaphthylene	5500	480	ug/Kg	2	08/08/18	KCA	SW8270D
Acetophenone	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Aniline	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Anthracene	2900	480	ug/Kg	2	08/08/18	KCA	SW8270D
Benz(a)anthracene	5000	480	ug/Kg	2	08/08/18	KCA	SW8270D
Benzidine	ND	270	ug/Kg	2	08/08/18	KCA	SW8270D
Benzo(a)pyrene	6000	480	ug/Kg	2	08/08/18	KCA	SW8270D
Benzo(b)fluoranthene	4800	480	ug/Kg	2	08/08/18	KCA	SW8270D
Benzo(ghi)perylene	5400	480	ug/Kg	2	08/08/18	KCA	SW8270D
Benzo(k)fluoranthene	4100	480	ug/Kg	2	08/08/18	KCA	SW8270D

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-29 (3-5 FT)

Phoenix I.D.: CA99810

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzoic acid	ND	1400	ug/Kg	2	08/08/18	KCA	SW8270D
Benzyl butyl phthalate	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Carbazole	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Chrysene	5400	480	ug/Kg	2	08/08/18	KCA	SW8270D
Dibenz(a,h)anthracene	1300	480	ug/Kg	2	08/08/18	KCA	SW8270D
Dibenzofuran	860	480	ug/Kg	2	08/08/18	KCA	SW8270D
Diethyl phthalate	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Dimethylphthalate	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Di-n-butylphthalate	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Di-n-octylphthalate	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Fluoranthene	6500	480	ug/Kg	2	08/08/18	KCA	SW8270D
Fluorene	970	480	ug/Kg	2	08/08/18	KCA	SW8270D
Hexachlorobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Hexachlorobutadiene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Hexachloroethane	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	5400	480	ug/Kg	2	08/08/18	KCA	SW8270D
Isophorone	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Naphthalene	870	480	ug/Kg	2	08/08/18	KCA	SW8270D
Nitrobenzene	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	2	08/08/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	220	ug/Kg	2	08/08/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Pentachloronitrobenzene	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Pentachlorophenol	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
Phenanthrene	6400	480	ug/Kg	2	08/08/18	KCA	SW8270D
Phenol	ND	480	ug/Kg	2	08/08/18	KCA	SW8270D
Pyrene	7700	480	ug/Kg	2	08/08/18	KCA	SW8270D
Pyridine	ND	680	ug/Kg	2	08/08/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	54		%	2	08/08/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	58		%	2	08/08/18	KCA	30 - 130 %
% 2-Fluorophenol	44		%	2	08/08/18	KCA	30 - 130 %
% Nitrobenzene-d5	51		%	2	08/08/18	KCA	30 - 130 %
% Phenol-d5	50		%	2	08/08/18	KCA	30 - 130 %
% Terphenyl-d14	54		%	2	08/08/18	KCA	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: SB-29 (3-5 FT)

Phoenix I.D.: CA99810

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:

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.

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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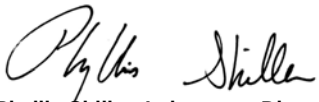

Phyllis Shiller, Laboratory Director
August 10, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 10, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/27/18	9:10
Location Code:	TIGHE-DAS	Received by:	SW	07/27/18	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA99810
Phoenix ID: CA99811

Project ID: ROCKVILLE MGP
Client ID: SB-29 (14-16 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/30/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	470	260	mg/Kg	5	07/30/18	AW	CTETPH 8015D
Identification	**		mg/Kg	5	07/30/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	109		%	5	07/30/18	AW	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.7	ug/Kg	1	07/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-29 (14-16 FT)

Phoenix I.D.: CA99811

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
2-Chlorotoluene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
2-Hexanone	ND	40	ug/Kg	1	07/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
4-Chlorotoluene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	40	ug/Kg	1	07/29/18	JLI	SW8260C
Acetone	ND	400	ug/Kg	1	07/29/18	JLI	SW8260C
Acrylonitrile	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Benzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Bromobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Bromochloromethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Bromodichloromethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Bromoform	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Bromomethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Carbon Disulfide	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Carbon tetrachloride	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Chlorobenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Chloroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Chloroform	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Chloromethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Dibromochloromethane	ND	4.7	ug/Kg	1	07/29/18	JLI	SW8260C
Dibromomethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Ethylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Isopropylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
m&p-Xylene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	47	ug/Kg	1	07/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	1	07/29/18	JLI	SW8260C
Methylene chloride	ND	16	ug/Kg	1	07/29/18	JLI	SW8260C
Naphthalene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
n-Butylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
n-Propylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
o-Xylene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
sec-Butylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Styrene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
tert-Butylbenzene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Tetrachloroethene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	16	ug/Kg	1	07/29/18	JLI	SW8260C
Toluene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Total Xylenes	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-29 (14-16 FT)

Phoenix I.D.: CA99811

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	16	ug/Kg	1	07/29/18	JLI	SW8260C
Trichloroethene	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
Vinyl chloride	ND	7.9	ug/Kg	1	07/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	07/29/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	07/29/18	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	07/29/18	JLI	70 - 130 %
% Toluene-d8	97		%	1	07/29/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	1500	250	ug/Kg	1	07/31/18	KCA	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Acenaphthylene	6200	250	ug/Kg	1	07/31/18	KCA	SW8270D
Anthracene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benz(a)anthracene	440	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(a)pyrene	5900	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(b)fluoranthene	2800	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(ghi)perylene	4000	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(k)fluoranthene	2400	250	ug/Kg	1	07/31/18	KCA	SW8270D
Chrysene	2600	250	ug/Kg	1	07/31/18	KCA	SW8270D
Dibenz(a,h)anthracene	1100	250	ug/Kg	1	07/31/18	KCA	SW8270D
Fluoranthene	260	250	ug/Kg	1	07/31/18	KCA	SW8270D
Fluorene	540	250	ug/Kg	1	07/31/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	4000	250	ug/Kg	1	07/31/18	KCA	SW8270D
Naphthalene	1400	250	ug/Kg	1	07/31/18	KCA	SW8270D
Phenanthrene	1600	250	ug/Kg	1	07/31/18	KCA	SW8270D
Pyrene	440	250	ug/Kg	1	07/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	64		%	1	07/31/18	KCA	30 - 130 %
% Nitrobenzene-d5	67		%	1	07/31/18	KCA	30 - 130 %
% Terphenyl-d14	62		%	1	07/31/18	KCA	30 - 130 %
Field Extraction	Completed				07/27/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-29 (14-16 FT)

Phoenix I.D.: CA99811

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:

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
August 10, 2018
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

August 10, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/27/18	11:50
Location Code:	TIGHE-DAS	Received by:	SW	07/27/18	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA99810
Phoenix ID: CA99812

Project ID: ROCKVILLE MGP
Client ID: SB-59 (2-3 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		07/27/18	Q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.80	0.53	mg/Kg	1	07/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				07/30/18	IG/CKV	SW3545A
Extraction of CT ETPH	Completed				07/27/18	BA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	07/28/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/28/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	07/28/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	07/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloroethene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloropropene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dichloropropane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-59 (2-3 FT)

Phoenix I.D.: CA99812

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3,5-Trimethylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
2-Chlorotoluene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
2-Hexanone	ND	52	ug/Kg	1	07/31/18	JLI	SW8260C
2-Isopropyltoluene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
4-Chlorotoluene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	52	ug/Kg	1	07/31/18	JLI	SW8260C
Acetone	ND	520	ug/Kg	1	07/31/18	JLI	SW8260C
Acrylonitrile	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Benzene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Bromobenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
Bromochloromethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Bromodichloromethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Bromoform	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Bromomethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Carbon Disulfide	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Carbon tetrachloride	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Chlorobenzene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Chloroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Chloroform	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Chloromethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Dibromochloromethane	ND	6.2	ug/Kg	1	07/31/18	JLI	SW8260C
Dibromomethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Dichlorodifluoromethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Ethylbenzene	6.9	6.2	ug/Kg	1	07/31/18	JLI	SW8260C
Hexachlorobutadiene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
Isopropylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
m&p-Xylene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	62	ug/Kg	1	07/31/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	21	ug/Kg	1	07/31/18	JLI	SW8260C
Methylene chloride	ND	21	ug/Kg	1	07/31/18	JLI	SW8260C
Naphthalene	420	370	ug/Kg	50	07/29/18	JLI	SW8260C
n-Butylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
n-Propylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
o-Xylene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
p-Isopropyltoluene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
sec-Butylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
Styrene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
tert-Butylbenzene	ND	460	ug/Kg	50	07/29/18	JLI	SW8260C
Tetrachloroethene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	21	ug/Kg	1	07/31/18	JLI	SW8260C
Toluene	4.8	4.1	ug/Kg	1	07/31/18	JLI	SW8260C
Total Xylenes	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-59 (2-3 FT)

Phoenix I.D.: CA99812

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	920	ug/Kg	50	07/29/18	JLI	SW8260C
Trichloroethene	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Trichlorofluoromethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
Vinyl chloride	ND	10	ug/Kg	1	07/31/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	50	07/29/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	50	07/29/18	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	07/31/18	JLI	70 - 130 %
% Toluene-d8	95		%	1	07/31/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	550	250	ug/Kg	1	07/31/18	KCA	SW8270D
Acenaphthene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Acenaphthylene	370	250	ug/Kg	1	07/31/18	KCA	SW8270D
Anthracene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benz(a)anthracene	350	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(a)pyrene	300	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(b)fluoranthene	280	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(ghi)perylene	340	250	ug/Kg	1	07/31/18	KCA	SW8270D
Benzo(k)fluoranthene	330	250	ug/Kg	1	07/31/18	KCA	SW8270D
Chrysene	480	250	ug/Kg	1	07/31/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Fluoranthene	440	250	ug/Kg	1	07/31/18	KCA	SW8270D
Fluorene	ND	250	ug/Kg	1	07/31/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	330	250	ug/Kg	1	07/31/18	KCA	SW8270D
Naphthalene	610	250	ug/Kg	1	07/31/18	KCA	SW8270D
Phenanthrene	520	250	ug/Kg	1	07/31/18	KCA	SW8270D
Pyrene	580	250	ug/Kg	1	07/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	60		%	1	07/31/18	KCA	30 - 130 %
% Nitrobenzene-d5	54		%	1	07/31/18	KCA	30 - 130 %
% Terphenyl-d14	61		%	1	07/31/18	KCA	30 - 130 %
Field Extraction	Completed				07/27/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-59 (2-3 FT)
Phoenix I.D.: CA99812

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:

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

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

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
August 10, 2018
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

August 10, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/27/18	12:15
Location Code:	TIGHE-DAS	Received by:	SW	07/27/18	16:06
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCA99810
Phoenix ID: CA99813

Project ID: ROCKVILLE MGP
Client ID: SB-59 (22-24 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	81		%		08/02/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				08/02/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				08/02/18	JJ/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	60	mg/Kg	1	08/03/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	08/03/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	55		%	1	08/03/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	08/03/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-59 (22-24 FT)

Phoenix I.D.: CA99813

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	08/03/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	08/03/18	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	08/03/18	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Bromodichloromethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	08/03/18	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	08/03/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	1	08/03/18	JLI	SW8260C
Methylene chloride	ND	9.3	ug/Kg	1	08/03/18	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
o-Xylene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	1	08/03/18	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-59 (22-24 FT)

Phoenix I.D.: CA99813

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	1	08/03/18	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
Vinyl chloride	ND	4.6	ug/Kg	1	08/03/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	08/03/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	08/03/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	08/03/18	JLI	70 - 130 %
% Toluene-d8	89		%	1	08/03/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Acenaphthene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Anthracene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Chrysene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Fluoranthene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Fluorene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Naphthalene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Phenanthrene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
Pyrene	ND	280	ug/Kg	1	08/05/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	52		%	1	08/05/18	HM	30 - 130 %
% Nitrobenzene-d5	55		%	1	08/05/18	HM	30 - 130 %
% Terphenyl-d14	69		%	1	08/05/18	HM	30 - 130 %
Field Extraction	Completed				07/27/18		SW5035A

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

Comments:

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
August 10, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 2

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

August 10, 2018

QA/QC Data

SDG I.D.: GCA99810

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 440828 (mg/Kg), QC Sample No: CA99729 50X (CA99811, CA99812)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	0.92	0.91	NC	96.4			101			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

August 10, 2018

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 440643 (mg/Kg), QC Sample No: CA99145 (CA99811, CA99812)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	67	63	6.2	75	72	4.1	60 - 120	30
% n-Pentacosane	68	%	73	67	8.6	76	78	2.6	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.										
QA/QC Batch 440862 (ug/kg), QC Sample No: CA99355 (CA99811, CA99812)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	57	64	11.6	65	58	11.4	30 - 130	30
Acenaphthene	ND	230	71	79	10.7	77	69	11.0	30 - 130	30
Acenaphthylene	ND	230	57	64	11.6	63	56	11.8	30 - 130	30
Anthracene	ND	230	63	68	7.6	67	61	9.4	30 - 130	30
Benz(a)anthracene	ND	230	72	78	8.0	74	67	9.9	30 - 130	30
Benzo(a)pyrene	ND	230	61	68	10.9	64	58	9.8	30 - 130	30
Benzo(b)fluoranthene	ND	230	66	72	8.7	67	61	9.4	30 - 130	30
Benzo(ghi)perylene	ND	230	58	64	9.8	61	53	14.0	30 - 130	30
Benzo(k)fluoranthene	ND	230	62	68	9.2	65	58	11.4	30 - 130	30
Chrysene	ND	230	72	79	9.3	79	71	10.7	30 - 130	30
Dibenz(a,h)anthracene	ND	230	62	69	10.7	67	58	14.4	30 - 130	30
Fluoranthene	ND	230	65	71	8.8	66	60	9.5	30 - 130	30
Fluorene	ND	230	63	68	7.6	69	61	12.3	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	61	68	10.9	65	55	16.7	30 - 130	30
Naphthalene	ND	230	54	62	13.8	62	55	12.0	30 - 130	30
Phenanthrene	ND	230	60	67	11.0	65	59	9.7	30 - 130	30
Pyrene	ND	230	64	69	7.5	67	61	9.4	30 - 130	30
% 2-Fluorobiphenyl	62	%	51	58	12.8	57	51	11.1	30 - 130	30
% Nitrobenzene-d5	66	%	55	66	18.2	77	71	8.1	30 - 130	30
% Terphenyl-d14	63	%	58	65	11.4	59	54	8.8	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 441491 (mg/Kg), QC Sample No: CA99813 (CA99813)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	101	95	6.1	93	104	11.2	60 - 120	30
% n-Pentacosane	58	%	83	78	6.2	78	88	12.0	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 440895 (ug/kg), QC Sample No: CA99902 (CA99811, CA99812 (50X))										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	105	106	0.9	107	105	1.9	70 - 130	30

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1-Trichloroethane	ND	5.0	100	99	1.0	102	99	3.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	101	104	2.9	107	103	3.8	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	98	0.0	104	100	3.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0	96	100	4.1	77	74	4.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	100	98	2.0	76	108	34.8	70 - 130	30	r
1,1-Dichloropropene	ND	5.0	101	98	3.0	104	100	3.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	102	101	1.0	111	111	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	95	98	3.1	98	95	3.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	104	102	1.9	108	109	0.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	99	97	2.0	103	100	3.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	107	112	4.6	109	110	0.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	102	1.0	106	102	3.8	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	98	98	0.0	102	100	2.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	96	95	1.0	99	94	5.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	99	97	2.0	102	98	4.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	100	99	1.0	103	101	2.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	100	98	2.0	104	101	2.9	70 - 130	30	
1,3-Dichloropropane	ND	5.0	97	99	2.0	101	98	3.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	99	98	1.0	102	101	1.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	109	105	3.7	109	106	2.8	70 - 130	30	
2-Chlorotoluene	ND	5.0	98	97	1.0	101	99	2.0	70 - 130	30	
2-Hexanone	ND	25	86	89	3.4	89	84	5.8	70 - 130	30	
2-Isopropyltoluene	ND	5.0	103	102	1.0	109	107	1.9	70 - 130	30	
4-Chlorotoluene	ND	5.0	99	98	1.0	102	100	2.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	93	2.2	96	92	4.3	70 - 130	30	
Acetone	ND	10	76	76	0.0	62	124	66.7	70 - 130	30	m,r
Acrylonitrile	ND	5.0	97	102	5.0	88	87	1.1	70 - 130	30	
Benzene	ND	1.0	99	97	2.0	103	98	5.0	70 - 130	30	
Bromobenzene	ND	5.0	101	100	1.0	104	101	2.9	70 - 130	30	
Bromochloromethane	ND	5.0	101	101	0.0	105	101	3.9	70 - 130	30	
Bromodichloromethane	ND	5.0	106	104	1.9	103	99	4.0	70 - 130	30	
Bromoform	ND	5.0	116	118	1.7	108	107	0.9	70 - 130	30	
Bromomethane	ND	5.0	105	97	7.9	61	64	4.8	70 - 130	30	m
Carbon Disulfide	ND	5.0	115	111	3.5	83	70	17.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	101	103	2.0	99	98	1.0	70 - 130	30	
Chlorobenzene	ND	5.0	99	98	1.0	103	100	3.0	70 - 130	30	
Chloroethane	ND	5.0	90	93	3.3	84	87	3.5	70 - 130	30	
Chloroform	ND	5.0	99	100	1.0	102	98	4.0	70 - 130	30	
Chloromethane	ND	5.0	89	89	0.0	92	86	6.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	102	101	1.0	106	101	4.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	104	102	1.9	104	101	2.9	70 - 130	30	
Dibromochloromethane	ND	3.0	116	117	0.9	110	107	2.8	70 - 130	30	
Dibromomethane	ND	5.0	99	98	1.0	101	98	3.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	95	90	5.4	103	96	7.0	70 - 130	30	
Ethylbenzene	ND	1.0	100	99	1.0	105	102	2.9	70 - 130	30	
Hexachlorobutadiene	ND	5.0	103	99	4.0	109	107	1.9	70 - 130	30	
Isopropylbenzene	ND	1.0	98	97	1.0	102	99	3.0	70 - 130	30	
m&p-Xylene	ND	2.0	99	98	1.0	104	102	1.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	83	87	4.7	85	82	3.6	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	89	87	2.3	92	87	5.6	70 - 130	30	
Methylene chloride	ND	5.0	90	86	4.5	90	85	5.7	70 - 130	30	
Naphthalene	ND	5.0	98	102	4.0	106	107	0.9	70 - 130	30	
n-Butylbenzene	ND	1.0	102	98	4.0	105	103	1.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
n-Propylbenzene	ND	1.0	99	97	2.0	103	101	2.0	70 - 130	30	
o-Xylene	ND	2.0	98	98	0.0	103	101	2.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	101	99	2.0	106	104	1.9	70 - 130	30	
sec-Butylbenzene	ND	1.0	103	101	2.0	108	106	1.9	70 - 130	30	
Styrene	ND	5.0	102	102	0.0	107	104	2.8	70 - 130	30	
tert-Butylbenzene	ND	1.0	98	97	1.0	102	100	2.0	70 - 130	30	
Tetrachloroethene	ND	5.0	101	97	4.0	107	104	2.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	91	94	3.2	102	97	5.0	70 - 130	30	
Toluene	ND	1.0	99	97	2.0	103	101	2.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	105	102	2.9	105	101	3.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	102	101	1.0	102	99	3.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	115	120	4.3	111	109	1.8	70 - 130	30	
Trichloroethene	ND	5.0	103	101	2.0	107	103	3.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	95	94	1.1	73	79	7.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	104	97	7.0	86	81	6.0	70 - 130	30	
Vinyl chloride	ND	5.0	96	96	0.0	101	96	5.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	100	0.0	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	99	99	0.0	101	101	0.0	70 - 130	30	
% Dibromofluoromethane	99	%	103	102	1.0	100	102	2.0	70 - 130	30	
% Toluene-d8	98	%	99	98	1.0	99	99	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 441070 (ug/kg), QC Sample No: CB00642 (CA99812)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	103	101	2.0	94	92	2.2	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	99	96	3.1	89	90	1.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	96	99	3.1	90	91	1.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	99	99	0.0	94	94	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	101	98	3.0	86	86	0.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	99	96	3.1	94	93	1.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	103	108	4.7	114	101	12.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	97	99	2.0	92	91	1.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	101	100	1.0	95	96	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	98	97	1.0	95	94	1.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	98	93	5.2	92	90	2.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	99	97	2.0	89	87	2.3	70 - 130	30	
2-Hexanone	ND	25	89	91	2.2	79	79	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	96	98	2.1	89	89	0.0	70 - 130	30	
Acetone	ND	10	74	79	6.5	63	70	10.5	70 - 130	30	m
Acrylonitrile	ND	5.0	104	109	4.7	98	98	0.0	70 - 130	30	
Benzene	ND	1.0	98	95	3.1	94	93	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	97	96	1.0	90	88	2.2	70 - 130	30	
Bromodichloromethane	ND	5.0	101	101	0.0	91	92	1.1	70 - 130	30	
Bromoform	ND	5.0	108	108	0.0	87	86	1.2	70 - 130	30	
Bromomethane	ND	5.0	92	88	4.4	91	87	4.5	70 - 130	30	
Carbon Disulfide	ND	5.0	107	102	4.8	89	88	1.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	100	98	2.0	88	87	1.1	70 - 130	30	
Chlorobenzene	ND	5.0	96	93	3.2	92	90	2.2	70 - 130	30	
Chloroethane	ND	5.0	101	96	5.1	95	92	3.2	70 - 130	30	
Chloroform	ND	5.0	95	94	1.1	89	89	0.0	70 - 130	30	
Chloromethane	ND	5.0	94	92	2.2	88	88	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	96	96	0.0	92	90	2.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	5.0	101	100	1.0	91	92	1.1	70 - 130	30	
Dibromochloromethane	ND	3.0	107	106	0.9	92	93	1.1	70 - 130	30	
Dibromomethane	ND	5.0	99	99	0.0	93	92	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	96	95	1.0	89	87	2.3	70 - 130	30	
Ethylbenzene	ND	1.0	98	94	4.2	95	93	2.1	70 - 130	30	
m&p-Xylene	ND	2.0	94	91	3.2	92	90	2.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	92	1.1	82	78	5.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	90	92	2.2	84	82	2.4	70 - 130	30	
Methylene chloride	ND	5.0	95	91	4.3	84	83	1.2	70 - 130	30	
o-Xylene	ND	2.0	98	95	3.1	97	95	2.1	70 - 130	30	
Styrene	ND	5.0	97	95	2.1	95	92	3.2	70 - 130	30	
Tetrachloroethene	ND	5.0	97	95	2.1	94	94	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	93	98	5.2	86	86	0.0	70 - 130	30	
Toluene	ND	1.0	101	100	1.0	96	95	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	108	94	13.9	94	95	1.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	95	96	1.0	88	88	0.0	70 - 130	30	
Trichloroethene	ND	5.0	100	98	2.0	95	94	1.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	94	90	4.3	89	85	4.6	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	97	4.0	90	88	2.2	70 - 130	30	
Vinyl chloride	ND	5.0	98	95	3.1	85	84	1.2	70 - 130	30	
% Dibromofluoromethane	95	%	101	102	1.0	93	93	0.0	70 - 130	30	
% Toluene-d8	95	%	102	103	1.0	100	103	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 441911 (ug/kg), QC Sample No: CB02227 (CA99813)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	92	93	1.1	95	92	3.2	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	84	85	1.2	87	86	1.2	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	84	84	0.0	83	83	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	91	88	3.4	93	90	3.3	70 - 130	30	
1,1-Dichloroethane	ND	5.0	83	84	1.2	86	83	3.6	70 - 130	30	
1,1-Dichloroethene	ND	5.0	93	95	2.1	90	86	4.5	70 - 130	30	
1,1-Dichloropropene	ND	5.0	89	85	4.6	89	85	4.6	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	93	92	1.1	94	98	4.2	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	78	76	2.6	77	77	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	90	90	0.0	93	94	1.1	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	83	81	2.4	85	82	3.6	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	96	92	4.3	89	89	0.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	87	85	2.3	88	85	3.5	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	89	88	1.1	91	90	1.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	88	87	1.1	87	86	1.2	70 - 130	30	
1,2-Dichloropropane	ND	5.0	88	85	3.5	91	88	3.4	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	83	82	1.2	84	82	2.4	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	84	84	0.0	85	84	1.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	83	82	1.2	83	81	2.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	89	87	2.3	90	89	1.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	83	86	3.6	82	83	1.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	86	85	1.2	86	85	1.2	70 - 130	30	
2-Hexanone	ND	25	76	72	5.4	70	69	1.4	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	95	94	1.1	96	94	2.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	83	83	0.0	84	82	2.4	70 - 130	30	
4-Methyl-2-pentanone	ND	25	86	85	1.2	84	85	1.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Acetone	ND	10	71	69	2.9	59	50	16.5	70 - 130	30	l,m
Acrylonitrile	ND	5.0	80	85	6.1	81	83	2.4	70 - 130	30	
Benzene	ND	1.0	88	87	1.1	90	87	3.4	70 - 130	30	
Bromobenzene	ND	5.0	93	91	2.2	92	93	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	85	86	1.2	89	91	2.2	70 - 130	30	
Bromodichloromethane	ND	5.0	96	95	1.0	96	93	3.2	70 - 130	30	
Bromoform	ND	5.0	99	98	1.0	89	90	1.1	70 - 130	30	
Bromomethane	ND	5.0	93	95	2.1	80	86	7.2	70 - 130	30	
Carbon Disulfide	ND	5.0	110	113	2.7	95	94	1.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	87	89	2.3	87	84	3.5	70 - 130	30	
Chlorobenzene	ND	5.0	89	89	0.0	92	90	2.2	70 - 130	30	
Chloroethane	ND	5.0	103	106	2.9	83	83	0.0	70 - 130	30	
Chloroform	ND	5.0	81	82	1.2	80	79	1.3	70 - 130	30	
Chloromethane	ND	5.0	80	81	1.2	84	84	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	87	89	2.3	91	91	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	91	92	1.1	93	92	1.1	70 - 130	30	
Dibromochloromethane	ND	3.0	102	100	2.0	96	95	1.0	70 - 130	30	
Dibromomethane	ND	5.0	90	85	5.7	90	86	4.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	90	92	2.2	94	91	3.2	70 - 130	30	
Ethylbenzene	ND	1.0	89	88	1.1	92	90	2.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	89	88	1.1	93	93	0.0	70 - 130	30	
Isopropylbenzene	ND	1.0	85	84	1.2	87	82	5.9	70 - 130	30	
m&p-Xylene	ND	2.0	85	85	0.0	89	86	3.4	70 - 130	30	
Methyl ethyl ketone	ND	5.0	74	71	4.1	71	71	0.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	94	96	2.1	101	100	1.0	70 - 130	30	
Methylene chloride	ND	5.0	81	82	1.2	83	84	1.2	70 - 130	30	
Naphthalene	ND	5.0	93	91	2.2	87	89	2.3	70 - 130	30	
n-Butylbenzene	ND	1.0	83	82	1.2	86	84	2.4	70 - 130	30	
n-Propylbenzene	ND	1.0	88	87	1.1	88	85	3.5	70 - 130	30	
o-Xylene	ND	2.0	90	89	1.1	93	92	1.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	86	84	2.4	88	86	2.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	84	84	0.0	87	84	3.5	70 - 130	30	
Styrene	ND	5.0	86	86	0.0	89	88	1.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	86	85	1.2	87	83	4.7	70 - 130	30	
Tetrachloroethene	ND	5.0	96	96	0.0	102	100	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	77	77	0.0	79	80	1.3	70 - 130	30	
Toluene	ND	1.0	93	92	1.1	98	95	3.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	92	95	3.2	92	95	3.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	91	90	1.1	90	90	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	106	103	2.9	92	92	0.0	70 - 130	30	
Trichloroethene	ND	5.0	95	92	3.2	96	93	3.2	70 - 130	30	
Trichlorofluoromethane	ND	5.0	93	95	2.1	81	87	7.1	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	99	103	4.0	101	103	2.0	70 - 130	30	
Vinyl chloride	ND	5.0	93	96	3.2	99	97	2.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	95	%	102	102	0.0	104	103	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	95	97	2.1	98	96	2.1	70 - 130	30	
% Dibromofluoromethane	99	%	98	99	1.0	102	105	2.9	70 - 130	30	
% Toluene-d8	88	%	102	102	0.0	103	104	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 Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 441524 (ug/kg), QC Sample No: CB03983 (CA99813)										
Semivolatiles - Soil										
2-Methylnaphthalene	ND	230	60	57	5.1	57	64	11.6	30 - 130	30
Acenaphthene	ND	230	70	72	2.8	70	76	8.2	30 - 130	30
Acenaphthylene	ND	130	60	62	3.3	59	64	8.1	30 - 130	30
Anthracene	ND	230	65	67	3.0	60	68	12.5	30 - 130	30
Benz(a)anthracene	ND	230	64	67	4.6	56	63	11.8	30 - 130	30
Benzo(a)pyrene	ND	130	64	65	1.6	56	64	13.3	30 - 130	30
Benzo(b)fluoranthene	ND	160	70	75	6.9	69	72	4.3	30 - 130	30
Benzo(ghi)perylene	ND	230	66	69	4.4	63	67	6.2	30 - 130	30
Benzo(k)fluoranthene	ND	230	74	71	4.1	62	73	16.3	30 - 130	30
Chrysene	ND	230	65	70	7.4	59	65	9.7	30 - 130	30
Dibenz(a,h)anthracene	ND	130	71	76	6.8	67	74	9.9	30 - 130	30
Fluoranthene	ND	230	71	72	1.4	58	73	22.9	30 - 130	30
Fluorene	ND	230	67	65	3.0	63	71	11.9	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	67	70	4.4	64	69	7.5	30 - 130	30
Naphthalene	ND	230	55	56	1.8	57	62	8.4	30 - 130	30
Phenanthrene	ND	130	66	68	3.0	63	71	11.9	30 - 130	30
Pyrene	ND	230	71	72	1.4	61	75	20.6	30 - 130	30
% 2-Fluorobiphenyl	51	%	59	59	0.0	60	64	6.5	30 - 130	30
% Nitrobenzene-d5	42	%	52	54	3.8	57	62	8.4	30 - 130	30
% Terphenyl-d14	67	%	65	66	1.5	54	60	10.5	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%)

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 441636 (ug/kg), QC Sample No: CB04593 (CA99810)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	62	61	1.6	58	64	9.8	30 - 130	30
Acenaphthene	ND	230	66	67	1.5	62	70	12.1	30 - 130	30
Acenaphthylene	ND	230	62	63	1.6	59	66	11.2	30 - 130	30
Anthracene	ND	230	69	68	1.5	65	72	10.2	30 - 130	30
Benz(a)anthracene	ND	230	69	69	0.0	66	73	10.1	30 - 130	30
Benzo(a)pyrene	ND	230	66	65	1.5	63	70	10.5	30 - 130	30
Benzo(b)fluoranthene	ND	230	70	69	1.4	65	73	11.6	30 - 130	30
Benzo(ghi)perylene	ND	230	64	62	3.2	59	66	11.2	30 - 130	30
Benzo(k)fluoranthene	ND	230	70	69	1.4	65	72	10.2	30 - 130	30
Chrysene	ND	230	66	65	1.5	62	67	7.8	30 - 130	30
Dibenz(a,h)anthracene	ND	230	66	65	1.5	61	69	12.3	30 - 130	30
Fluoranthene	ND	230	71	71	0.0	67	76	12.6	30 - 130	30
Fluorene	ND	230	67	68	1.5	64	72	11.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	59	58	1.7	56	62	10.2	30 - 130	30
Naphthalene	ND	230	61	59	3.3	57	63	10.0	30 - 130	30
Phenanthrene	ND	230	64	64	0.0	60	67	11.0	30 - 130	30
Pyrene	ND	230	70	71	1.4	68	76	11.1	30 - 130	30
% 2-Fluorobiphenyl	56	%	56	57	1.8	54	60	10.5	30 - 130	30
% Nitrobenzene-d5	41	%	44	48	8.7	45	57	23.5	30 - 130	30
% Terphenyl-d14	60	%	62	62	0.0	60	66	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 Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 441638 (mg/Kg), QC Sample No: CB04621 (CA99810)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	76	84	10.0	74	94	23.8	60 - 120	30	
% n-Pentacosane	72	%	77	77	0.0	88	88	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 441761 (ug/Kg), QC Sample No: CB04784 2X (CA99810)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	73	81	10.4	63	59	6.6	40 - 140	30	
4,4' -DDE	ND	1.7	73	78	6.6	64	61	4.8	40 - 140	30	
4,4' -DDT	ND	1.7	77	84	8.7	66	62	6.3	40 - 140	30	
a-BHC	ND	1.0	70	79	12.1	61	60	1.7	40 - 140	30	
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30	
Aldrin	ND	1.0	73	80	9.2	64	60	6.5	40 - 140	30	
b-BHC	ND	1.0	74	81	9.0	65	64	1.6	40 - 140	30	
Chlordane	ND	33	74	83	11.5	65	64	1.6	40 - 140	30	
d-BHC	ND	3.3	74	81	9.0	62	59	5.0	40 - 140	30	
Dieldrin	ND	1.0	76	84	10.0	65	62	4.7	40 - 140	30	
Endosulfan I	ND	3.3	80	91	12.9	68	65	4.5	40 - 140	30	
Endosulfan II	ND	3.3	78	86	9.8	67	64	4.6	40 - 140	30	
Endosulfan sulfate	ND	3.3	74	81	9.0	64	61	4.8	40 - 140	30	
Endrin	ND	3.3	79	88	10.8	69	66	4.4	40 - 140	30	
Endrin aldehyde	ND	3.3	72	79	9.3	63	59	6.6	40 - 140	30	
Endrin ketone	ND	3.3	78	85	8.6	63	67	6.2	40 - 140	30	
g-BHC	ND	1.0	71	80	11.9	62	62	0.0	40 - 140	30	
Heptachlor	ND	3.3	70	80	13.3	63	62	1.6	40 - 140	30	
Heptachlor epoxide	ND	3.3	74	80	7.8	63	62	1.6	40 - 140	30	
Methoxychlor	ND	3.3	79	88	10.8	68	121	56.1	40 - 140	30	r
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	86	%	74	83	11.5	70	68	2.9	30 - 150	30	
% TCMX	82	%	72	78	8.0	66	65	1.5	30 - 150	30	
QA/QC Batch 441925 (ug/kg), QC Sample No: CB05397 (CA99810)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	56	55	1.8	53	54	1.9	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	63	63	0.0	59	59	0.0	30 - 130	30	
1,2-Dichlorobenzene	ND	180	58	56	3.5	52	53	1.9	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	65	64	1.6	62	58	6.7	30 - 130	30	
1,3-Dichlorobenzene	ND	230	57	56	1.8	50	50	0.0	30 - 130	30	
1,4-Dichlorobenzene	ND	230	56	57	1.8	51	51	0.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	70	72	2.8	65	62	4.7	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	66	67	1.5	62	61	1.6	30 - 130	30	
2,4-Dichlorophenol	ND	130	67	64	4.6	62	63	1.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	69	70	1.4	66	68	3.0	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	17	NC	48	41	15.7	30 - 130	30	I
2,4-Dinitrotoluene	ND	130	71	70	1.4	67	63	6.2	30 - 130	30	
2,6-Dinitrotoluene	ND	130	67	67	0.0	62	60	3.3	30 - 130	30	
2-Chloronaphthalene	ND	230	70	70	0.0	62	60	3.3	30 - 130	30	
2-Chlorophenol	ND	230	59	58	1.7	56	55	1.8	30 - 130	30	
2-Methylnaphthalene	ND	230	60	59	1.7	55	56	1.8	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	66	63	4.7	64	63	1.6	30 - 130	30	

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Nitroaniline	ND	330	89	88	1.1	89	88	1.1	30 - 130	30	
2-Nitrophenol	ND	230	64	62	3.2	63	64	1.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	64	61	4.8	60	60	0.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	66	66	0.0	66	67	1.5	30 - 130	30	
3-Nitroaniline	ND	330	81	76	6.4	72	72	0.0	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	19	38	66.7	60	48	22.2	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	67	64	4.6	58	60	3.4	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	67	68	1.5	65	65	0.0	30 - 130	30	
4-Chloroaniline	ND	230	73	68	7.1	61	70	13.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	68	67	1.5	62	60	3.3	30 - 130	30	
4-Nitroaniline	ND	230	68	68	0.0	64	63	1.6	30 - 130	30	
4-Nitrophenol	ND	230	55	56	1.8	94	87	7.7	30 - 130	30	
Acenaphthene	ND	230	70	71	1.4	64	61	4.8	30 - 130	30	
Acenaphthylene	ND	130	67	68	1.5	54	47	13.9	30 - 130	30	
Acetophenone	ND	230	57	56	1.8	51	53	3.8	30 - 130	30	
Aniline	ND	330	58	51	12.8	52	49	5.9	30 - 130	30	
Anthracene	ND	230	69	70	1.4	59	55	7.0	30 - 130	30	
Benz(a)anthracene	ND	230	68	69	1.5	47	46	2.2	30 - 130	30	
Benzidine	ND	330	55	55	0.0	23	34	38.6	30 - 130	30	m,r
Benzo(a)pyrene	ND	130	67	68	1.5	49	41	17.8	30 - 130	30	
Benzo(b)fluoranthene	ND	160	68	71	4.3	54	49	9.7	30 - 130	30	
Benzo(ghi)perylene	ND	230	64	67	4.6	55	43	24.5	30 - 130	30	
Benzo(k)fluoranthene	ND	230	74	73	1.4	49	43	13.0	30 - 130	30	
Benzoic Acid	ND	330	<10	10	NC	<10	22	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	230	73	67	8.6	63	64	1.6	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	68	67	1.5	61	63	3.2	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	52	52	0.0	53	55	3.7	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	54	51	5.7	47	49	4.2	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	76	69	9.7	64	66	3.1	30 - 130	30	
Carbazole	ND	230	69	69	0.0	64	61	4.8	30 - 130	30	
Chrysene	ND	230	70	72	2.8	45	41	9.3	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	69	69	0.0	63	64	1.6	30 - 130	30	
Dibenzofuran	ND	230	68	69	1.5	60	58	3.4	30 - 130	30	
Diethyl phthalate	ND	230	71	70	1.4	63	62	1.6	30 - 130	30	
Dimethylphthalate	ND	230	70	71	1.4	64	61	4.8	30 - 130	30	
Di-n-butylphthalate	ND	670	73	70	4.2	64	63	1.6	30 - 130	30	
Di-n-octylphthalate	ND	230	77	72	6.7	66	68	3.0	30 - 130	30	
Fluoranthene	ND	230	67	70	4.4	42	36	15.4	30 - 130	30	
Fluorene	ND	230	70	71	1.4	66	62	6.3	30 - 130	30	
Hexachlorobenzene	ND	130	67	64	4.6	61	60	1.7	30 - 130	30	
Hexachlorobutadiene	ND	230	61	60	1.7	56	56	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	55	53	3.7	46	37	21.7	30 - 130	30	
Hexachloroethane	ND	130	54	54	0.0	47	48	2.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67	70	4.4	57	49	15.1	30 - 130	30	
Isophorone	ND	130	60	58	3.4	55	55	0.0	30 - 130	30	
Naphthalene	ND	230	65	65	0.0	61	60	1.7	30 - 130	30	
Nitrobenzene	ND	130	63	62	1.6	59	62	5.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	61	58	5.0	55	53	3.7	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	65	63	3.1	59	63	6.6	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	71	69	2.9	64	62	3.2	30 - 130	30	
Pentachloronitrobenzene	ND	230	61	59	3.3	57	56	1.8	30 - 130	30	
Pentachlorophenol	ND	230	55	46	17.8	55	53	3.7	30 - 130	30	
Phenanthrene	ND	130	68	69	1.5	54	52	3.8	30 - 130	30	

QA/QC Data

SDG I.D.: GCA99810

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Phenol	ND	230	64	58	9.8	63	60	4.9	30 - 130	30
Pyrene	ND	230	69	72	4.3	41	33	21.6	30 - 130	30
Pyridine	ND	230	48	50	4.1	38	37	2.7	30 - 130	30
% 2,4,6-Tribromophenol	58	%	61	59	3.3	60	58	3.4	30 - 130	30
% 2-Fluorobiphenyl	62	%	62	63	1.6	55	53	3.7	30 - 130	30
% 2-Fluorophenol	55	%	55	55	0.0	58	56	3.5	30 - 130	30
% Nitrobenzene-d5	56	%	54	53	1.9	53	54	1.9	30 - 130	30
% Phenol-d5	57	%	59	58	1.7	60	57	5.1	30 - 130	30
% Terphenyl-d14	61	%	62	62	0.0	59	56	5.2	30 - 130	30

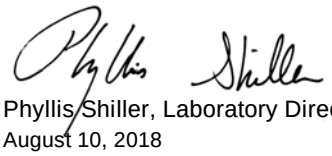
Comment:

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%)

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

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

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



Phyllis Shiller, Laboratory Director
August 10, 2018

Friday, August 10, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCA99810 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA99810	$8270-SMR	Benzidine	CT / RSR DEC I/C (mg/kg) / APS Organics	ND	270	200	200	ug/Kg
CA99810	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1300	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	6000	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	5400	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzidine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	270	200	200	ug/Kg
CA99810	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1300	480	1000	1000	ug/Kg
CA99810	$8270-SMR	N-Nitrosodi-n-propylamine	CT / RSR DEC RES (mg/kg) / APS Organics	ND	220	200	200	ug/Kg
CA99810	$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6000	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4800	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5000	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	5400	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	5400	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	5400	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1300	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4100	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	5000	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	6000	480	1000	1000	ug/Kg
CA99810	$8270-SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4800	480	1000	1000	ug/Kg
CA99810	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	520	520	500	500	mg/Kg
CA99811	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	1100	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	5900	250	1000	1000	ug/Kg
CA99811	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	1100	250	1000	1000	ug/Kg
CA99811	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	4000	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2800	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5900	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	4000	250	1000	1000	ug/Kg
CA99811	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2600	250	1000	1000	ug/Kg
CA99811	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	4000	250	1000	1000	ug/Kg
CA99811	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	1100	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2800	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	5900	250	1000	1000	ug/Kg
CA99811	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2400	250	1000	1000	ug/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

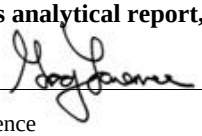
Laboratory Sample ID(s): CA99811, CA99812 ***Sampling Date(s):*** 7/27/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8081, 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:** Friday, August 10, 2018

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

August 10, 2018

SDG I.D.: GCA99810

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.

Cyanide Narration

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

Instrument:

LACHAT 07/30/18-1 Dustin Harrison, Greg Danielewski, Chemist 07/30/18

CA99811, CA99812

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 440828 (CA99729)

CA99811, CA99812

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

ETPH Narration

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

Instrument:

AU-FID1 08/03/18-1 Jeff Bucko, Chemist 08/03/18

CA99810

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 07/30/18-1 Jeff Bucko, Chemist 07/30/18

CA99811

The initial calibration (ETPH621I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 07/27/18-1 Jeff Bucko, Chemist 07/27/18

CA99812

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 08/02/18-1 Jeff Bucko, Chemist 08/02/18

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

ETPH Narration

CA99813

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

QC (Batch Specific):

Batch 440643 (CA99145)

CA99811, CA99812

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 441638 (CB04621)

CA99810

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

QC (Site Specific):

Batch 441491 (CA99813)

CA99813

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.

PEST Narration

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

Instrument:

AU-ECD35 08/08/18-1 Carol Wohlmuth, Chemist 08/08/18

CA99810

The initial calibration (PS808AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS808BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

PEST Narration

QC (Batch Specific):

Batch 441761 (CB04784)

CA99810

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 441925 (Samples: CA99810): -----

The LCS/LCSD recovery is below the method criteria. A low bias for this analyte is possible. (2,4-Dinitrophenol)

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. (4,6-Dinitro-2-methylphenol)

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

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

Instrument:

CHEM05 08/08/18-1 Harry Mullin, Chemist 08/08/18

CA99810

Initial Calibration Verification (CHEM05/SPLIT_0803):
91% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 47% (20%), 2-Nitrophenol 21% (20%), 4,6-Dinitro-2-methylphenol 25% (20%), 4-Chloroaniline 28% (20%), 4-Nitrophenol 36% (20%), Naphthalene 25% (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 (CHEM05/0808_02-SPLIT_0803):
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: Hexachlorocyclopentadiene 32%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 0.097 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM07 08/05/18-1 Matt Richard, Chemist 08/05/18

CA99813

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

Initial Calibration Verification (CHEM07/bn_0802):

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

SVOA Narration

95% of target compounds met criteria.
The following compounds had %RSDs >20%: Benzo(a)pyrene 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 (CHEM07/0805_02A-bn_0802):
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: % Nitrobenzene-d5 32%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.

CHEM29 07/30/18-2 Matt Richard, Chemist 07/30/18

CA99811, CA99812

Initial Calibration Verification (CHEM29/BN_0726):
85% of target compounds met criteria.
The following compounds had %RSDs >20%: Acenaphthene 39% (20%), Benz(a)anthracene 40% (20%), Chrysene 40% (20%)
The following compounds did not meet recommended response factors: Acenaphthene 0.885 (0.9)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0730_25-BN_0726):
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 440862 (CA99355)

CA99811, CA99812

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%)

Batch 441524 (CB03983)

CA99813

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%)

Batch 441636 (CB04593)

CA99810

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

SVOA Narration

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%)

Batch 441925 (CB05397)

CA99810

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(19%), Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(17%), Benzoic Acid(10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(66.7%)
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%)

VOA Narration

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

QC Batch 441911 (Samples: CA99813): -----

The LCSD and Batch MS/MSD recovery is below the lower range but within the method criteria. A low bias is possible. (Acetone)

Instrument:

CHEM03 07/29/18-1 Jane Li, Chemist 07/29/18

CA99811, CA99812

Initial Calibration Verification (CHEM03/VT-L0726):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 25% (20%), Bromoform 26% (20%), Chloroethane 27% (20%)
The following compounds did not meet recommended response factors: Acetone 0.075 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0729L02-VT-L0726):
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 07/30/18-3 Jane Li, Chemist 07/30/18

CA99812

Initial Calibration Verification (CHEM14/VT-0730):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 22% (20%), Chloroethane 21% (20%)
The following compounds did not meet recommended response factors: Acetone 0.090 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0730_45-VT-0730):

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

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.

CHEM18 08/03/18-1 Jane Li, Chemist 08/03/18

CA99813

Initial Calibration Verification (CHEM18/VT-M0723):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 21% (20%), trans-1,4-dichloro-2-butene 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 (CHEM18/0803M02-VT-M0723):
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 440895 (CA99902)

CA99811, CA99812

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%.

Batch 441070 (CB00642)

CA99812

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%.

Batch 441911 (CB02227)

CA99813

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(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%.

Temperature Narration

The samples in this delivery group were received at 3.2°C.

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RCP Certification Report

August 10, 2018

SDG I.D.: GCA99810

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 3.2 °C Pg 1 of 1

CHAIN OF CUSTODY RECORD

PHOENIX Environmental Laboratories, Inc.

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

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEW.Mckee@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middletown CT

Project: Riverwalk MGP
Report to: Lynn Mckee
Invoice to: Tighe + Bond

Project P.O: 14-0755-4418

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/27/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	PAHs	1-ETPH	Total Cyanide	Soil VOA Vials [ ]methanol [X] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
99810	SB-29 (3-5 ft)	S	7/27/18	8:30						3	1							
99811	SB-29 (14-16 ft)			9:10	X	X	X	X		3	1							
99812	SB-54 (2-3 ft)			11:50	X	X	X	X		3	1							
99813	SB-54 (22-24 ft)	↓	↓	12:15						3	1							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	72718	7/27/18

Comments, Special Requirements or Regulations:
Please hold SB-29 (3-5 ft) + SB-54 (22-24 ft)
DAS pricing
quote TI0125178A

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

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ RCP Cert
☐ GW Protectron
☐ 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 22
Page 615 of 1282

Client Services

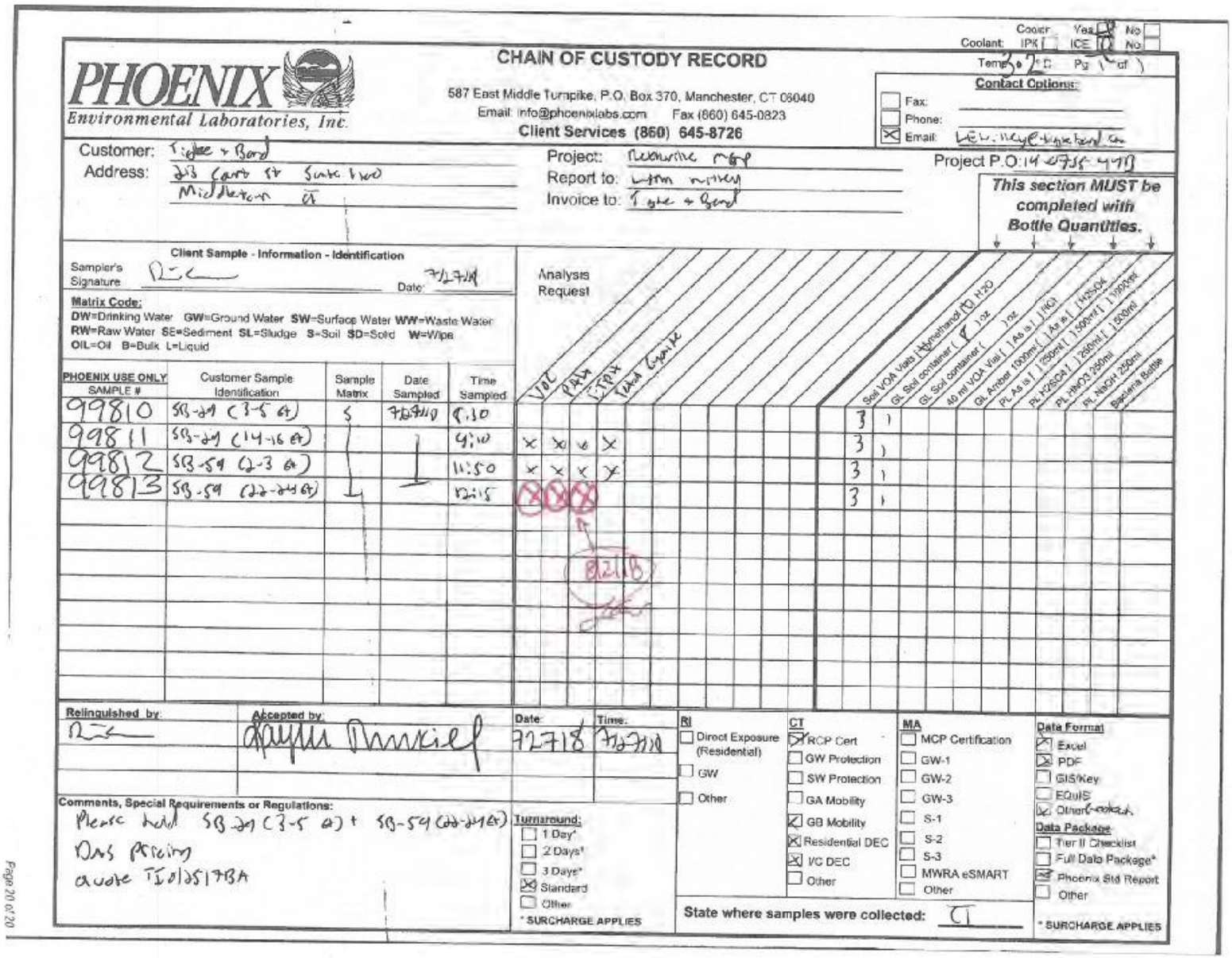
From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Thursday, August 02, 2018 1:21 PM
To: Client Services
Subject: Activate SB-59 22-24
Attachments: SB-59 Activation.pdf

Hi there:

Please activate SB-59 22-24 (99813)

Thank You

Lynn E. Willey, P.G., 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.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (660) 645-0823
Client Services (860) 645-8726

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 3.2 °C Pg 1 of 1

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: [illegible]

Customer: Tighe + Bond
Address: 213 Court St Suite 1400
Middletown CT

Project: Nelsonville MGP
Report to: Lynn Miller
Invoice to: Tighe + Bond

Project P.O: 14-0758-4715

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/27/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	PAHs	LTPH	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 [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
99810	SB-59 (3-5 ft)	S	7/27/18	8:30					3	1								
99811	SB-59 (14-16 ft)			9:10	X	X	X	X	3	1								
99812	SB-54 (2-3 ft)			11:50	X	X	X	X	3	1								
99813	SB-59 (22-24 ft)			12:15	X	X	X		3	1								

8270 SIM

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	72718	7:27:18

Comments, Special Requirements or Regulations:
Please hold SB-59 (3-5 ft) + SB-54 (22-24 ft)
DNS Pricing
quote TIO125178A

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 [illegible]

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

Page 20 of 20

Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Friday, August 03, 2018 10:27 AM
To: Sarah Bell
Subject: Rockville MGP sample additions and prelim data

Good morning Sarah,

Can you please make the following changes:

SB-29 (3-5 ft) [99810]: Change PAH to SVOC
SB-30 (2-4 ft) [98807]: Add total cyanide
SB-32 (2-4 ft) [96215]: Add SPLP RCP Metals

Also is there any preliminary metals data available for GCA98805, GCA99810 and/or GCA 98174? We need to select some additional samples for SPLP metals within those delivery groups. I am also looking for ETPH data from GCA9817 so we can select two samples for PCB analysis.

Thank you!
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn



Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Friday, August 03, 2018 10:27 AM
To: Sarah Bell
Subject: Rockville MGP sample additions and prelim data

Good morning Sarah,

Can you please make the following changes:

SB-29 (3-5 ft) [99810]: Change PAH to SVOC
SB-30 (2-4 ft) [98807]: Add total cyanide
SB-32 (2-4 ft) [96215]: Add SPLP RCP Metals

Also is there any preliminary metals data available for GCA98805, GCA99810 and/or GCA 98174? We need to select some additional samples for SPLP metals within those delivery groups. I am also looking for ETPH data from GCA9817 so we can select two samples for PCB analysis.

Thank you!
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn



PHOENIX
Environmental Laboratories, Inc.

Monday, August 13, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB01075

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 13, 2018

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:		07/30/18	11:00
Location Code:	TIGHE-DAS	Received by:	LB	07/30/18	16:05
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB01074
Phoenix ID: CB01075

Project ID: ROCKVILLE MGP
Client ID: SB-64 (38.5-40 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86		%		07/30/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				07/31/18	?/CKV	SW3545A
Extraction of CT ETPH	Completed				07/30/18	JJ/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	07/31/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	07/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	07/31/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	07/31/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloroethene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,1-Dichloropropene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dibromoethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dichloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,2-Dichloropropane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: SB-64 (38.5-40 FT)

Phoenix I.D.: CB01075

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,3-Dichloropropane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
2,2-Dichloropropane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
2-Chlorotoluene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
2-Hexanone	ND	22	ug/Kg	1	07/31/18	JLI	SW8260C
2-Isopropyltoluene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
4-Chlorotoluene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	22	ug/Kg	1	07/31/18	JLI	SW8260C
Acetone	ND	220	ug/Kg	1	07/31/18	JLI	SW8260C
Acrylonitrile	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Benzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Bromobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Bromochloromethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Bromodichloromethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Bromoform	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Bromomethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Carbon Disulfide	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Carbon tetrachloride	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Chlorobenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Chloroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Chloroform	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Chloromethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Dibromochloromethane	ND	2.6	ug/Kg	1	07/31/18	JLI	SW8260C
Dibromomethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Ethylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Hexachlorobutadiene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Isopropylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
m&p-Xylene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	26	ug/Kg	1	07/31/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.7	ug/Kg	1	07/31/18	JLI	SW8260C
Methylene chloride	ND	8.7	ug/Kg	1	07/31/18	JLI	SW8260C
Naphthalene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
n-Butylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
n-Propylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
o-Xylene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
p-Isopropyltoluene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
sec-Butylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Styrene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
tert-Butylbenzene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Tetrachloroethene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	8.7	ug/Kg	1	07/31/18	JLI	SW8260C
Toluene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Total Xylenes	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-64 (38.5-40 FT)

Phoenix I.D.: CB01075

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	8.7	ug/Kg	1	07/31/18	JLI	SW8260C
Trichloroethene	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
Vinyl chloride	ND	4.4	ug/Kg	1	07/31/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	07/31/18	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	07/31/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/31/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	07/31/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Acenaphthene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Anthracene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Chrysene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Fluoranthene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Fluorene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Naphthalene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Phenanthrene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
Pyrene	ND	270	ug/Kg	1	08/01/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	66		%	1	08/01/18	HM	30 - 130 %
% Nitrobenzene-d5	66		%	1	08/01/18	HM	30 - 130 %
% Terphenyl-d14	56		%	1	08/01/18	HM	30 - 130 %
Field Extraction	Completed				07/30/18		SW5035A

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

Comments:

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

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

Phyllis Shiller, Laboratory Director
August 13, 2018
Reviewed and Released by: Sarah Bell, Project Manager

Ver 2

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

August 13, 2018

QA/QC Data

SDG I.D.: GCB01074

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 440912 (mg/Kg), QC Sample No: CB00372 (CB01075)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	83	84	1.2	110	95	14.6	60 - 120	30	
% n-Pentacosane	81	%	72	66	8.7	77	81	5.1	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 441089 (ug/kg), QC Sample No: CB00372 (CB01075)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	112	112	0.0	104	104	0.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	103	103	0.0	99	100	1.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	108	108	0.0	111	102	8.5	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	105	107	1.9	96	95	1.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	108	109	0.9	109	108	0.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	104	100	3.9	103	103	0.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	104	105	1.0	101	101	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	105	107	1.9	101	105	3.9	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	104	104	0.0	113	100	12.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	106	107	0.9	101	107	5.8	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	103	104	1.0	100	97	3.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	107	108	0.9	94	99	5.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	109	109	0.0	97	98	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	103	104	1.0	85	104	20.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	108	108	0.0	102	103	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	106	106	0.0	101	100	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	103	103	0.0	105	97	7.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	104	104	0.0	89	101	12.6	70 - 130	30	
1,3-Dichloropropane	ND	5.0	108	108	0.0	102	102	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	103	103	0.0	88	102	14.7	70 - 130	30	
2,2-Dichloropropane	ND	5.0	106	105	0.9	101	109	7.6	70 - 130	30	
2-Chlorotoluene	ND	5.0	104	104	0.0	104	97	7.0	70 - 130	30	
2-Hexanone	ND	25	89	90	1.1	83	86	3.6	70 - 130	30	
2-Isopropyltoluene	ND	5.0	105	105	0.0	100	100	0.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	104	105	1.0	99	97	2.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	99	102	3.0	94	49	62.9	70 - 130	30	m,r
Acetone	ND	10	83	86	3.6	72	65	10.2	70 - 130	30	m
Acrylonitrile	ND	5.0	100	99	1.0	96	49	64.8	70 - 130	30	m,r
Benzene	ND	1.0	105	105	0.0	99	99	0.0	70 - 130	30	
Bromobenzene	ND	5.0	106	107	0.9	106	101	4.8	70 - 130	30	
Bromochloromethane	ND	5.0	109	123	12.1	109	130	17.6	70 - 130	30	
Bromodichloromethane	ND	5.0	109	110	0.9	99	99	0.0	70 - 130	30	
Bromoform	ND	5.0	112	113	0.9	94	93	1.1	70 - 130	30	
Bromomethane	ND	5.0	103	107	3.8	101	100	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB01074

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	5.0	106	104	1.9	99	98	1.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	101	101	0.0	97	97	0.0	70 - 130	30	
Chlorobenzene	ND	5.0	106	106	0.0	99	99	0.0	70 - 130	30	
Chloroethane	ND	5.0	107	107	0.0	114	120	5.1	70 - 130	30	
Chloroform	ND	5.0	113	116	2.6	109	112	2.7	70 - 130	30	
Chloromethane	ND	5.0	103	102	1.0	93	93	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	109	110	0.9	102	99	3.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	108	108	0.0	81	79	2.5	70 - 130	30	
Dibromochloromethane	ND	3.0	114	115	0.9	103	103	0.0	70 - 130	30	
Dibromomethane	ND	5.0	107	107	0.0	100	99	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	111	110	0.9	105	105	0.0	70 - 130	30	
Ethylbenzene	ND	1.0	106	105	0.9	102	102	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	110	0.9	74	111	40.0	70 - 130	30	r
Isopropylbenzene	ND	1.0	101	102	1.0	111	95	15.5	70 - 130	30	
m&p-Xylene	ND	2.0	104	105	1.0	99	99	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	93	95	2.1	88	52	51.4	70 - 130	30	m,r
Methyl t-butyl ether (MTBE)	ND	1.0	104	103	1.0	104	103	1.0	70 - 130	30	
Methylene chloride	ND	5.0	96	95	1.0	95	95	0.0	70 - 130	30	
Naphthalene	ND	5.0	106	107	0.9	97	100	3.0	70 - 130	30	
n-Butylbenzene	ND	1.0	104	104	0.0	85	98	14.2	70 - 130	30	
n-Propylbenzene	ND	1.0	103	103	0.0	107	96	10.8	70 - 130	30	
o-Xylene	ND	2.0	105	106	0.9	97	98	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	103	105	1.9	91	100	9.4	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	106	0.9	103	100	3.0	70 - 130	30	
Styrene	ND	5.0	106	106	0.0	103	56	59.1	70 - 130	30	m,r
tert-Butylbenzene	ND	1.0	103	103	0.0	106	96	9.9	70 - 130	30	
Tetrachloroethene	ND	5.0	103	106	2.9	100	97	3.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	100	101	1.0	96	95	1.0	70 - 130	30	
Toluene	ND	1.0	104	106	1.9	97	97	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	111	109	1.8	108	107	0.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	105	105	0.0	84	82	2.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	110	111	0.9	79	95	18.4	70 - 130	30	
Trichloroethene	ND	5.0	105	109	3.7	103	102	1.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	98	97	1.0	101	103	2.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	101	102	1.0	107	104	2.8	70 - 130	30	
Vinyl chloride	ND	5.0	107	108	0.9	109	108	0.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	101	1.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	96	%	101	101	0.0	92	101	9.3	70 - 130	30	
% Dibromofluoromethane	104	%	103	101	2.0	103	103	0.0	70 - 130	30	
% Toluene-d8	100	%	100	101	1.0	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 441062 (ug/kg), QC Sample No: CB01501 (CB01075)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	67	68	1.5	77	67	13.9	30 - 130	30	
Acenaphthene	ND	230	73	75	2.7	76	61	21.9	30 - 130	30	
Acenaphthylene	ND	230	67	68	1.5	NC	NC	NC	30 - 130	30	
Anthracene	ND	230	75	74	1.3	NC	NC	NC	30 - 130	30	
Benz(a)anthracene	ND	230	75	75	0.0	NC	NC	NC	30 - 130	30	
Benzo(a)pyrene	ND	230	73	74	1.4	NC	NC	NC	30 - 130	30	
Benzo(b)fluoranthene	ND	230	77	77	0.0	NC	NC	NC	30 - 130	30	
Benzo(ghi)perylene	ND	230	70	70	0.0	NC	NC	NC	30 - 130	30	

QA/QC Data

SDG I.D.: GCB01074

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(k)fluoranthene	ND	230	74	74	0.0	NC	NC	NC	30 - 130	30	
Chrysene	ND	230	77	78	1.3	NC	NC	NC	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	75	76	1.3	NC	NC	NC	30 - 130	30	
Fluoranthene	ND	230	76	73	4.0	NC	NC	NC	30 - 130	30	
Fluorene	ND	230	71	72	1.4	77	63	20.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	74	75	1.3	NC	NC	NC	30 - 130	30	
Naphthalene	ND	230	63	63	0.0	81	63	25.0	30 - 130	30	
Phenanthrene	ND	230	73	71	2.8	NC	NC	NC	30 - 130	30	
Pyrene	ND	230	74	72	2.7	NC	NC	NC	30 - 130	30	
% 2-Fluorobiphenyl	64	%	64	65	1.6	74	61	19.3	30 - 130	30	
% Nitrobenzene-d5	67	%	69	68	1.5	75	49	41.9	30 - 130	30	r
% Terphenyl-d14	64	%	70	67	4.4	71	62	13.5	30 - 130	30	

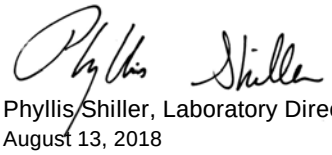
Comment:

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%)

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

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

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



Phyllis Shiller, Laboratory Director
August 13, 2018

Monday, August 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB01074 - 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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

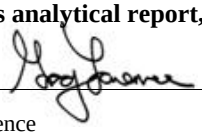
Laboratory Sample ID(s): CB01075 ***Sampling Date(s):*** 7/30/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the 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:** Monday, August 13, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCB01074

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.

ETPH Narration

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

Instrument:

AU-FID84 07/30/18-1 Jeff Bucko, Chemist 07/30/18

CB01075

The initial calibration (ETPH705I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 440912 (CB00372)

CB01075

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.

SVOA Narration

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

Instrument:

CHEM29 07/31/18-1 Harry Mullin, Chemist 07/31/18

CB01075

Initial Calibration Verification (CHEM29/BN_0726):
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 (CHEM29/0731_06-BN_0726):
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 441062 (CB01501)

CB01075

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 13, 2018

SDG I.D.: GCB01074

SVOA Narration

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%)

VOA Narration

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

Instrument:

CHEM31 07/30/18-2 Jane Li, Chemist 07/30/18

CB01075

Initial Calibration Verification (CHEM31/VT-L0730):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: Chloroethane 32% (20%), Methylene chloride 24% (20%), Trichlorofluoromethane 23% (20%)
The following compounds did not meet recommended response factors: Acetone 0.094 (0.1), Bromomethane 0.083 (0.1), Tetrachloroethene 0.151 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM31/0730_14-VT-L0730):
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 441089 (CB00372)

CB01075

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%.

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: Vcraney@tnb-inc.com

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middle town CT

Project: Rockville MGP
Report to: Lynn Miller
Invoice to: Tighe + Bond

Project P.O: 14-0755-4418

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 7/30/19

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	TCLP	VOC	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	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
01074	SB-64 (24-30 ft)	S	7/30/19	10:50				3	1								
01075	SB-64 (38.5-40 ft)	S	7/30/19	11:00	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/30/19	1600

Comments, Special Requirements or Regulations:
DAS (RCP) Please hold SB-64 (24-30 ft)
Quote TI-25178A

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 (Format)

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 22
Page 631 of 1282

PHOENIX
Environmental Laboratories, Inc.

Monday, August 27, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB15818 - CB15820

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 27, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/20/18	11:15
Location Code:	TIGHE-DAS	Received by:	CP	08/21/18	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCB15818
Phoenix ID: CB15818

Project ID: ROCKVILLE MGP
Client ID: SB-62 (31-33FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		08/21/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				08/21/18	JJ/CK	SW3545A
Extraction of CT ETPH	Completed				08/21/18	JJ/SCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	08/22/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	08/22/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	85		%	1	08/22/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.4	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-62 (31-33FT)

Phoenix I.D.: CB15818

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
2-Chlorotoluene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
2-Hexanone	ND	36	ug/Kg	1	08/22/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
4-Chlorotoluene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/Kg	1	08/22/18	JLI	SW8260C
Acetone	ND	360	ug/Kg	1	08/22/18	JLI	SW8260C
Acrylonitrile	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Benzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromochloromethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromodichloromethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromoform	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromomethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Carbon Disulfide	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Carbon tetrachloride	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chlorobenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloroform	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloromethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Dibromochloromethane	ND	4.4	ug/Kg	1	08/22/18	JLI	SW8260C
Dibromomethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Ethylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Isopropylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
m&p-Xylene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	44	ug/Kg	1	08/22/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	08/22/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	08/22/18	JLI	SW8260C
Naphthalene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
n-Butylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
n-Propylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
o-Xylene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
sec-Butylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Styrene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
tert-Butylbenzene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Tetrachloroethene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	08/22/18	JLI	SW8260C
Toluene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Total Xylenes	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-62 (31-33FT)

Phoenix I.D.: CB15818

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	1	08/22/18	JLI	SW8260C
Trichloroethene	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
Vinyl chloride	ND	7.3	ug/Kg	1	08/22/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	08/22/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	08/22/18	JLI	70 - 130 %
% Dibromofluoromethane	107		%	1	08/22/18	JLI	70 - 130 %
% Toluene-d8	87		%	1	08/22/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Chrysene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	1	08/22/18	KCA	30 - 130 %
% Nitrobenzene-d5	60		%	1	08/22/18	KCA	30 - 130 %
% Terphenyl-d14	61		%	1	08/22/18	KCA	30 - 130 %
Field Extraction	Completed				08/20/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-62 (31-33FT)

Phoenix I.D.: CB15818

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:

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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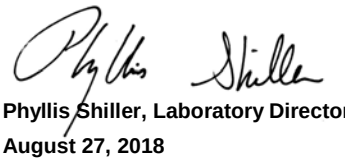

Phyllis Shiller, Laboratory Director
August 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 27, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/20/18	10:00
Location Code:	TIGHE-DAS	Received by:	CP	08/21/18	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCB15818
Phoenix ID: CB15819

Project ID: ROCKVILLE MGP
Client ID: SB-61 (23-25FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		08/21/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				08/21/18	JJ/CK	SW3545A
Extraction of CT ETPH	Completed				08/21/18	JJ/SCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	910	110	mg/Kg	2	08/22/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	08/22/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	116		%	2	08/22/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	200	ug/Kg	50	08/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	08/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	3000	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	58	ug/Kg	50	08/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	29	ug/Kg	50	08/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	200	ug/Kg	50	08/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	890	290	ug/Kg	50	08/24/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-61 (23-25FT)

Phoenix I.D.: CB15819

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
2-Chlorotoluene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
2-Hexanone	ND	1500	ug/Kg	50	08/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
4-Chlorotoluene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	1500	ug/Kg	50	08/24/18	JLI	SW8260C
Acetone	ND	15000	ug/Kg	50	08/24/18	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	08/24/18	JLI	SW8260C
Benzene	200	170	ug/Kg	50	08/24/18	JLI	SW8260C
Bromobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Bromochloromethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Bromodichloromethane	ND	210	ug/Kg	50	08/24/18	JLI	SW8260C
Bromoform	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Bromomethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Carbon Disulfide	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Carbon tetrachloride	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Chlorobenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Chloroethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Chloroform	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Chloromethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	100	ug/Kg	50	08/24/18	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	08/24/18	JLI	SW8260C
Dibromomethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Ethylbenzene	1900	290	ug/Kg	50	08/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Isopropylbenzene	610	290	ug/Kg	50	08/24/18	JLI	SW8260C
m&p-Xylene	960	290	ug/Kg	50	08/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	1700	ug/Kg	50	08/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	580	ug/Kg	50	08/24/18	JLI	SW8260C
Methylene chloride	ND	580	ug/Kg	50	08/24/18	JLI	SW8260C
Naphthalene	31000	2900	ug/Kg	500	08/25/18	JLI	SW8260C
n-Butylbenzene	220	170	ug/Kg	50	08/24/18	JLI	SW8260C
n-Propylbenzene	350	290	ug/Kg	50	08/24/18	JLI	SW8260C
o-Xylene	910	290	ug/Kg	50	08/24/18	JLI	SW8260C
p-Isopropyltoluene	320	290	ug/Kg	50	08/24/18	JLI	SW8260C
sec-Butylbenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Styrene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
tert-Butylbenzene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Tetrachloroethene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	580	ug/Kg	50	08/24/18	JLI	SW8260C
Toluene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Total Xylenes	1870	290	ug/Kg	50	08/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	100	ug/Kg	50	08/24/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-61 (23-25FT)

Phoenix I.D.: CB15819

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	580	ug/Kg	50	08/24/18	JLI	SW8260C
Trichloroethene	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	580	ug/Kg	50	08/24/18	JLI	SW8260C
Vinyl chloride	ND	290	ug/Kg	50	08/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	50	08/24/18	JLI	70 - 130 %
% Bromofluorobenzene	103		%	50	08/24/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	50	08/24/18	JLI	70 - 130 %
% Toluene-d8	103		%	50	08/24/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	10000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Acenaphthene	11000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Acenaphthylene	3300	250	ug/Kg	1	08/22/18	KCA	SW8270D
Anthracene	9200	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Benz(a)anthracene	8000	1000	ug/Kg	10	08/22/18	KCA	SW8270D
Benzo(a)pyrene	6900	250	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(b)fluoranthene	3300	250	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(ghi)perylene	2400	250	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(k)fluoranthene	3800	250	ug/Kg	1	08/22/18	KCA	SW8270D
Chrysene	8000	1000	ug/Kg	10	08/22/18	KCA	SW8270D
Dibenz(a,h)anthracene	590	250	ug/Kg	1	08/22/18	KCA	SW8270D
Fluoranthene	19000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Fluorene	7100	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	2400	250	ug/Kg	1	08/22/18	KCA	SW8270D
Naphthalene	19000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Phenanthrene	22000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
Pyrene	29000	2500	ug/Kg	10	08/22/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	63		%	1	08/22/18	KCA	30 - 130 %
% Nitrobenzene-d5	62		%	1	08/22/18	KCA	30 - 130 %
% Terphenyl-d14	62		%	1	08/22/18	KCA	30 - 130 %
Field Extraction	Completed				08/20/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-61 (23-25FT)

Phoenix I.D.: CB15819

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:

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:
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.

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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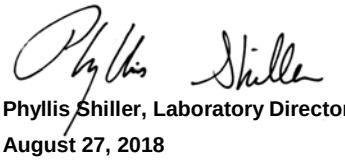

Phyllis Shiller, Laboratory Director
August 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

Analysis Report

August 27, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/20/18	11:16
Location Code:	TIGHE-DAS	Received by:	CP	08/21/18	16:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCB15818
Phoenix ID: CB15820

Project ID: ROCKVILLE MGP
Client ID: DUP-101

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86		%		08/21/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				08/21/18	JJ/CK	SW3545A
Extraction of CT ETPH	Completed				08/21/18	JJ/SCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	57	mg/Kg	1	08/22/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	08/22/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	08/22/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	08/22/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: DUP-101

Phoenix I.D.: CB15820

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	08/22/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	08/22/18	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	08/22/18	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	08/22/18	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	08/22/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	08/22/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	08/22/18	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
o-Xylene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	08/22/18	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C

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Project ID: ROCKVILLE MGP
Client ID: DUP-101

Phoenix I.D.: CB15820

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	08/22/18	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	08/22/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	08/22/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/22/18	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	08/22/18	JLI	70 - 130 %
% Toluene-d8	87		%	1	08/22/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Chrysene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Fluoranthene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Naphthalene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
Pyrene	ND	260	ug/Kg	1	08/22/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	54		%	1	08/22/18	KCA	30 - 130 %
% Nitrobenzene-d5	46		%	1	08/22/18	KCA	30 - 130 %
% Terphenyl-d14	64		%	1	08/22/18	KCA	30 - 130 %
Field Extraction	Completed				08/20/18		SW5035A

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

Comments:

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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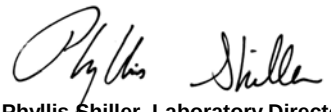


Phyllis Shiller, Laboratory Director
August 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1

PHOENIX

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

August 27, 2018

QA/QC Data

SDG I.D.: GCB15818

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 444346 (ug/kg), QC Sample No: CB15457 (CB15818, CB15820)										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	90	87	3.4	88	87	1.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	101	98	3.0	96	98	2.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	94	73	25.1	88	86	2.3	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	94	2.1	93	93	0.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	98	100	2.0	99	105	5.9	70 - 130	30
1,1-Dichloroethene	ND	5.0	111	108	2.7	105	104	1.0	70 - 130	30
1,1-Dichloropropene	ND	5.0	97	96	1.0	93	93	0.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	91	91	0.0	81	81	0.0	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	88	86	2.3	86	88	2.3	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	88	88	0.0	73	77	5.3	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	89	88	1.1	85	83	2.4	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	93	98	5.2	94	100	6.2	70 - 130	30
1,2-Dibromoethane	ND	5.0	92	89	3.3	88	89	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	97	95	2.1	91	91	0.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	101	98	3.0	99	99	0.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	100	96	4.1	95	97	2.1	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	86	86	0.0	83	82	1.2	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	90	88	2.2	84	84	0.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	89	88	1.1	86	87	1.2	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	94	92	2.2	86	86	0.0	70 - 130	30
2,2-Dichloropropane	ND	5.0	101	93	8.2	94	97	3.1	70 - 130	30
2-Chlorotoluene	ND	5.0	89	86	3.4	88	87	1.1	70 - 130	30
2-Hexanone	ND	25	84	80	4.9	82	85	3.6	70 - 130	30
2-Isopropyltoluene	ND	5.0	96	94	2.1	92	92	0.0	70 - 130	30
4-Chlorotoluene	ND	5.0	88	83	5.8	82	82	0.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	97	97	0.0	96	98	2.1	70 - 130	30
Acetone	ND	10	77	77	0.0	73	81	10.4	70 - 130	30
Acrylonitrile	ND	5.0	95	101	6.1	91	101	10.4	70 - 130	30
Benzene	ND	1.0	98	96	2.1	94	95	1.1	70 - 130	30
Bromobenzene	ND	5.0	95	93	2.1	93	91	2.2	70 - 130	30
Bromochloromethane	ND	5.0	95	89	6.5	89	95	6.5	70 - 130	30
Bromodichloromethane	ND	5.0	99	96	3.1	94	97	3.1	70 - 130	30
Bromoform	ND	5.0	81	80	1.2	81	82	1.2	70 - 130	30
Bromomethane	ND	5.0	108	101	6.7	103	105	1.9	70 - 130	30
Carbon Disulfide	ND	5.0	106	106	0.0	101	104	2.9	70 - 130	30
Carbon tetrachloride	ND	5.0	94	94	0.0	92	96	4.3	70 - 130	30
Chlorobenzene	ND	5.0	94	91	3.2	88	88	0.0	70 - 130	30
Chloroethane	ND	5.0	110	105	4.7	109	109	0.0	70 - 130	30
Chloroform	ND	5.0	95	90	5.4	90	94	4.3	70 - 130	30
Chloromethane	ND	5.0	99	96	3.1	96	99	3.1	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	102	96	6.1	96	103	7.0	70 - 130	30

QA/QC Data

SDG I.D.: GCB15818

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
cis-1,3-Dichloropropene	ND	5.0	102	98	4.0	96	96	0.0	70 - 130	30
Dibromochloromethane	ND	3.0	96	94	2.1	93	94	1.1	70 - 130	30
Dibromomethane	ND	5.0	103	99	4.0	98	98	0.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	109	103	5.7	105	108	2.8	70 - 130	30
Ethylbenzene	ND	1.0	92	87	5.6	85	86	1.2	70 - 130	30
Hexachlorobutadiene	ND	5.0	91	88	3.4	82	84	2.4	70 - 130	30
Isopropylbenzene	ND	1.0	89	90	1.1	88	88	0.0	70 - 130	30
m&p-Xylene	ND	2.0	87	84	3.5	81	81	0.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	93	87	6.7	87	93	6.7	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	110	109	0.9	106	110	3.7	70 - 130	30
Methylene chloride	ND	5.0	95	94	1.1	90	93	3.3	70 - 130	30
Naphthalene	ND	5.0	94	95	1.1	90	93	3.3	70 - 130	30
n-Butylbenzene	ND	1.0	90	89	1.1	82	82	0.0	70 - 130	30
n-Propylbenzene	ND	1.0	89	90	1.1	86	84	2.4	70 - 130	30
o-Xylene	ND	2.0	91	89	2.2	87	88	1.1	70 - 130	30
p-Isopropyltoluene	ND	1.0	89	89	0.0	85	84	1.2	70 - 130	30
sec-Butylbenzene	ND	1.0	94	93	1.1	91	90	1.1	70 - 130	30
Styrene	ND	5.0	86	84	2.4	81	83	2.4	70 - 130	30
tert-Butylbenzene	ND	1.0	92	90	2.2	91	89	2.2	70 - 130	30
Tetrachloroethene	ND	5.0	97	97	0.0	93	94	1.1	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	99	98	1.0	96	104	8.0	70 - 130	30
Toluene	ND	1.0	100	96	4.1	96	97	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	108	107	0.9	102	106	3.8	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	92	91	1.1	87	88	1.1	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	92	92	0.0	86	87	1.2	70 - 130	30
Trichloroethene	ND	5.0	99	98	1.0	98	101	3.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	102	102	0.0	98	101	3.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	107	108	0.9	105	108	2.8	70 - 130	30
Vinyl chloride	ND	5.0	107	106	0.9	105	106	0.9	70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	101	101	0.0	100	100	0.0	70 - 130	30
% Bromofluorobenzene	96	%	96	94	2.1	95	94	1.1	70 - 130	30
% Dibromofluoromethane	107	%	101	96	5.1	99	101	2.0	70 - 130	30
% Toluene-d8	85	%	106	105	0.9	104	106	1.9	70 - 130	30

Comment:

A blank MS/MSD was analyzed with 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 444180 (ug/kg), QC Sample No: CB15484 (CB15818, CB15819, CB15820)

Semivolatiles - Soil

2-Methylnaphthalene	ND	230	66	63	4.7	42	53	23.2	30 - 130	30
Acenaphthene	ND	230	76	75	1.3	51	58	12.8	30 - 130	30
Acenaphthylene	ND	130	71	70	1.4	48	55	13.6	30 - 130	30
Anthracene	ND	230	75	74	1.3	67	57	16.1	30 - 130	30
Benz(a)anthracene	ND	230	76	73	4.0	72	57	23.3	30 - 130	30
Benzo(a)pyrene	ND	130	73	71	2.8	69	55	22.6	30 - 130	30
Benzo(b)fluoranthene	ND	160	76	76	0.0	73	57	24.6	30 - 130	30
Benzo(ghi)perylene	ND	230	74	73	1.4	70	55	24.0	30 - 130	30
Benzo(k)fluoranthene	ND	230	76	73	4.0	73	57	24.6	30 - 130	30
Chrysene	ND	230	77	74	4.0	72	57	23.3	30 - 130	30
Dibenz(a,h)anthracene	ND	130	76	77	1.3	72	56	25.0	30 - 130	30
Fluoranthene	ND	230	75	74	1.3	73	57	24.6	30 - 130	30
Fluorene	ND	230	77	75	2.6	58	59	1.7	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	76	74	2.7	72	55	26.8	30 - 130	30

QA/QC Data

SDG I.D.: GCB15818

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Naphthalene	ND	230	64	64	0.0	41	53	25.5	30 - 130	30	
Phenanthrene	ND	130	75	74	1.3	68	57	17.6	30 - 130	30	
Pyrene	ND	230	76	74	2.7	74	59	22.6	30 - 130	30	
% 2-Fluorobiphenyl	60	%	64	64	0.0	41	50	19.8	30 - 130	30	
% Nitrobenzene-d5	61	%	65	63	3.1	37	52	33.7	30 - 130	30	r
% Terphenyl-d14	56	%	65	62	4.7	61	49	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 444065 (mg/Kg), QC Sample No: CB15859 (CB15818, CB15819, CB15820)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	66	59	11.2	76	73	4.0	60 - 120	30	l
% n-Pentacosane	73	%	79	72	9.3	84	81	3.6	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.

QA/QC Batch 444794 (ug/kg), QC Sample No: CB17065 (CB15819 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	109	112	2.7	105	103	1.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	106	108	1.9	101	102	1.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	101	3.0	95	90	5.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	103	5.0	96	93	3.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	99	100	1.0	91	94	3.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	99	101	2.0	90	93	3.3	70 - 130	30	
1,1-Dichloropropene	ND	5.0	112	115	2.6	105	106	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	107	112	4.6	72	121	50.8	70 - 130	30	r
1,2,3-Trichloropropane	ND	5.0	96	103	7.0	92	86	6.7	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	107	113	5.5	74	122	49.0	70 - 130	30	r
1,2,4-Trimethylbenzene	ND	1.0	107	109	1.9	94	87	7.7	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	105	111	5.6	99	91	8.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	107	5.8	100	97	3.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	99	102	3.0	85	77	9.9	70 - 130	30	
1,2-Dichloroethane	ND	5.0	104	108	3.8	105	104	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	104	106	1.9	101	100	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	109	112	2.7	98	92	6.3	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	104	106	1.9	88	79	10.8	70 - 130	30	
1,3-Dichloropropane	ND	5.0	100	106	5.8	100	97	3.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	100	103	3.0	85	77	9.9	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	106	10.7	93	105	12.1	70 - 130	30	
2-Chlorotoluene	ND	5.0	107	108	0.9	96	91	5.3	70 - 130	30	
2-Hexanone	ND	25	86	93	7.8	70	104	39.1	70 - 130	30	r
2-Isopropyltoluene	ND	5.0	111	113	1.8	98	91	7.4	70 - 130	30	
4-Chlorotoluene	ND	5.0	105	106	0.9	92	87	5.6	70 - 130	30	
4-Methyl-2-pentanone	ND	25	88	96	8.7	83	79	4.9	70 - 130	30	
Acetone	ND	10	68	71	4.3	60	60	0.0	70 - 130	30	l,m
Acrylonitrile	ND	5.0	88	92	4.4	67	65	3.0	70 - 130	30	m
Benzene	ND	1.0	103	106	2.9	98	98	0.0	70 - 130	30	
Bromobenzene	ND	5.0	103	106	2.9	94	88	6.6	70 - 130	30	
Bromochloromethane	ND	5.0	101	104	2.9	99	98	1.0	70 - 130	30	
Bromodichloromethane	ND	5.0	104	107	2.8	101	102	1.0	70 - 130	30	
Bromoform	ND	5.0	111	117	5.3	105	98	6.9	70 - 130	30	
Bromomethane	ND	5.0	80	82	2.5	75	74	1.3	70 - 130	30	

QA/QC Data

SDG I.D.: GCB15818

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	5.0	107	109	1.9	94	98	4.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	104	108	3.8	99	103	4.0	70 - 130	30	
Chlorobenzene	ND	5.0	102	104	1.9	95	91	4.3	70 - 130	30	
Chloroethane	ND	5.0	91	93	2.2	83	88	5.8	70 - 130	30	
Chloroform	ND	5.0	99	102	3.0	95	97	2.1	70 - 130	30	
Chloromethane	ND	5.0	84	89	5.8	76	79	3.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	96	107	10.8	97	91	6.4	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	105	111	5.6	101	96	5.1	70 - 130	30	
Dibromochloromethane	ND	3.0	112	116	3.5	109	105	3.7	70 - 130	30	
Dibromomethane	ND	5.0	98	103	5.0	97	94	3.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	87	89	2.3	79	81	2.5	70 - 130	30	
Ethylbenzene	ND	1.0	105	107	1.9	96	93	3.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	118	123	4.1	83	130	44.1	70 - 130	30	r
Isopropylbenzene	ND	1.0	116	120	3.4	105	104	1.0	70 - 130	30	
m&p-Xylene	ND	2.0	109	111	1.8	98	95	3.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	77	86	11.0	69	66	4.4	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	106	112	5.5	104	104	0.0	70 - 130	30	
Methylene chloride	ND	5.0	88	89	1.1	86	88	2.3	70 - 130	30	
n-Butylbenzene	ND	1.0	110	113	2.7	89	81	9.4	70 - 130	30	
n-Propylbenzene	ND	1.0	110	111	0.9	97	94	3.1	70 - 130	30	
o-Xylene	ND	2.0	114	118	3.4	104	101	2.9	70 - 130	30	
p-Isopropyltoluene	ND	1.0	115	118	2.6	98	92	6.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	117	120	2.5	102	96	6.1	70 - 130	30	
Styrene	ND	5.0	113	115	1.8	98	94	4.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	114	118	3.4	103	98	5.0	70 - 130	30	
Tetrachloroethene	ND	5.0	113	114	0.9	105	105	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	96	103	7.0	94	91	3.2	70 - 130	30	
Toluene	ND	1.0	102	105	2.9	90	90	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	98	101	3.0	89	93	4.4	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	101	105	3.9	95	91	4.3	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	103	109	5.7	88	81	8.3	70 - 130	30	
Trichloroethene	ND	5.0	109	112	2.7	103	101	2.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	92	93	1.1	82	86	4.8	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	104	103	1.0	91	96	5.3	70 - 130	30	
Vinyl chloride	ND	5.0	93	94	1.1	82	87	5.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	96	%	102	100	2.0	101	102	1.0	70 - 130	30	
% Dibromofluoromethane	103	%	102	102	0.0	103	103	0.0	70 - 130	30	
% Toluene-d8	101	%	99	99	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 444938 (ug/kg), QC Sample No: CB18738 (CB15819 (500X))											
Volatiles - Soil											
Naphthalene	ND	5.0	113	115	1.8	103	110	6.6	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.: GCB15818

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
August 27, 2018

Monday, August 27, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB15818 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB15819	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	8000	1000	7800	7800	ug/Kg
CB15819	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	6900	250	1000	1000	ug/Kg
CB15819	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2400	250	1000	1000	ug/Kg
CB15819	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3300	250	1000	1000	ug/Kg
CB15819	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	8000	1000	1000	1000	ug/Kg
CB15819	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6900	250	1000	1000	ug/Kg
CB15819	$8100SMR	2-Methylnaphthalene	CT / RSR GB (mg/kg) / APS Organics	10000	2500	5600	5600	ug/Kg
CB15819	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2400	250	1000	1000	ug/Kg
CB15819	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	8000	1000	1000	1000	ug/Kg
CB15819	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2400	250	1000	1000	ug/Kg
CB15819	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3800	250	1000	1000	ug/Kg
CB15819	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	6900	250	1000	1000	ug/Kg
CB15819	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	8000	1000	1000	1000	ug/Kg
CB15819	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3300	250	1000	1000	ug/Kg
CB15819	$8260MAR	1,2-Dibromoethane	CT / RSR DEC RES (mg/kg) / Volatiles	ND	29	7	7	ug/Kg
CB15819	$8260MAR	1,2-Dibromo-3-chloropropane	CT / RSR GB (mg/kg) / APS Organics	ND	58	40	40	ug/Kg
CB15819	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	910	110	500	500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

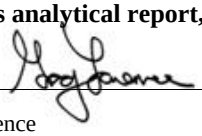
Laboratory Sample ID(s): CB15818-CB15820 ***Sampling Date(s):*** 8/20/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH 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, August 27, 2018

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

August 27, 2018

SDG I.D.: GCB15818

SDG Comments

8270 Semi-volatile Organics: CB15818, CB15819, CB15820
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

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

ETPH Narration

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

QC Batch 444065 (Samples: CB15818, CB15819, CB15820): -----

The LCSD recovery is below the method criteria. The surrogate recovery is acceptable. The Batch MS/MSD recoveries are acceptable. No significant bias is suspected.

Instrument:

AU-FID11 08/21/18-1 Jeff Bucko, Chemist 08/21/18

CB15818

The initial calibration (ETPH728I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 08/22/18-1 Jeff Bucko, Chemist 08/22/18

CB15819

The initial calibration (ETPH802I) 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 08/21/18-1 Jeff Bucko, Chemist 08/21/18

CB15820

The initial calibration (ETPH814I) 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 444065 (CB15859)

CB15818, CB15819, CB15820

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: Ext. Petroleum H.C. (C9-C36)(59%)
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.

SVOA Narration

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

Instrument:

CHEM06 08/21/18-2 Matt Richard, Chemist 08/21/18

CB15818, CB15819

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RCP Certification Report

August 27, 2018

SDG I.D.: GCB15818

SVOA Narration

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/SPLIT_0816):
95% 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 (CHEM06/0821_29-SPLIT_0816):
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.

CHEM19 08/22/18-1 Harry Mullin, Chemist 08/22/18

CB15819, CB15820

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM19/SPLIT_0816):
95% 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 (CHEM19/0822_02-SPLIT_0816):
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 444180 (CB15484)

CB15818, CB15819, CB15820

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%)

VOA Narration

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RCP Certification Report

August 27, 2018

SDG I.D.: GCB15818

VOA Narration

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

QC Batch 444794 (Samples: CB15819): -----

The LCS and Batch MS/MSD recovery is below the lower range but within the method criteria. A slight low bias is possible. (Acetone)

Instrument:

CHEM14 08/24/18-2 Jane Li, Chemist 08/24/18

CB15819

Initial Calibration Verification (CHEM14/vt-0823):
94% 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 (CHEM14/0824_36-vt-0823):
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 08/21/18-2 Jane Li, Chemist 08/21/18

CB15818, CB15820

Initial Calibration Verification (CHEM18/VT-M0817):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2,4-Trichlorobenzene 21% (20%), Acetone 34% (20%), Methyl Ethyl Ketone 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 (CHEM18/0821M30-VT-M0817):
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.

CHEM31 08/23/18-2 Jane Li, Chemist 08/23/18

CB15819

Initial Calibration Verification (CHEM31/VT-L0822):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 25% (20%), Chloroethane 30% (20%), Styrene 22% (20%)
The following compounds did not meet recommended response factors: Bromoform 0.083 (0.1), Tetrachloroethene 0.122 (0.2), Trichloroethene 0.197 (0.2)
The following compounds did not meet a minimum response factors: None.

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RCP Certification Report

August 27, 2018

SDG I.D.: GCB15818

VOA Narration

Continuing Calibration Verification (CHEM31/0823_31-VT-L0822):
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: Bromoform 0.093 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 444346 (CB15457)

CB15818, CB15820

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 blank MS/MSD was analyzed with this batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 444794 (CB17065)

CB15819

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

Batch 444938 (CB18738)

CB15819

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%.

Temperature Narration

The samples were received at 1.8C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

Temp 1.8 °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

Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LWilley@tnpeba.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.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/21/19

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	PAH	ETPH	Soil VOA Vials w/ methanol [X] 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
15818	SB-62 (31-33 FT)	S	9/20/19	11:15	X	X	X	3	1								
15819	SB-61 (33-35 FT)	1	9/21/19	1000	X	X	X	3	1								
15820	DUP-101	1	9/20/19	11:16	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9/21/19	16:30

Comments, Special Requirements or Regulations:
DHS Pricing
QUOTE: TL0125178A

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
[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 Equis

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 22
Page 655 of 1282

PHOENIX
Environmental Laboratories, Inc.

Monday, August 27, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB17429

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

August 27, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/23/18	11:35
Location Code:	TIGHE-DAS	Received by:	SW	08/23/18	15:21
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB17425
Phoenix ID: CB17429

Project ID: ROCKVILLE MGP
Client ID: SB-60 (40-42 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	79		%		08/24/18	Q	SW846-%Solid
Soil Extraction SVOA PAH	Completed				08/23/18	JJ/CK	SW3545A
Extraction of CT ETPH	Completed				08/23/18	AA/TCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	62	mg/Kg	1	08/24/18	AW	CTETPH 8015D
Identification	ND		mg/Kg	1	08/24/18	AW	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	08/24/18	AW	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-60 (40-42 FT)

Phoenix I.D.: CB17429

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	08/24/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	08/24/18	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	08/24/18	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	08/24/18	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
m&p-Xylene	6.4	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	08/24/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	08/24/18	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	08/24/18	JLI	SW8260C
Naphthalene	160	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	08/24/18	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Total Xylenes	6.4	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-60 (40-42 FT)

Phoenix I.D.: CB17429

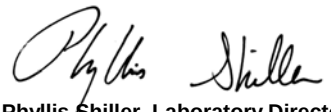
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	08/24/18	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	08/24/18	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	08/24/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/24/18	JLI	70 - 130 %
% Bromofluorobenzene	103		%	1	08/24/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	08/24/18	JLI	70 - 130 %
% Toluene-d8	103		%	1	08/24/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Benzo(b)fluoranthene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Chrysene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Fluoranthene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Fluorene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Phenanthrene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
Pyrene	ND	290	ug/Kg	1	08/24/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	59		%	1	08/24/18	KCA	30 - 130 %
% Nitrobenzene-d5	58		%	1	08/24/18	KCA	30 - 130 %
% Terphenyl-d14	62		%	1	08/24/18	KCA	30 - 130 %
Field Extraction	Completed				08/23/18		SW5035A

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

Comments:

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

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



Phyllis Shiller, Laboratory Director
August 27, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1

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

August 27, 2018

QA/QC Data

SDG I.D.: GCB17425

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 444516 (mg/Kg), QC Sample No: CB17295 (CB17429)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	60	82	31.0	83	72	14.2	60 - 120	30	r
% n-Pentacosane	80	%	76	89	15.8	86	71	19.1	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 444939 (ug/kg), QC Sample No: CB17429 (CB17429)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	97	98	1.0	92	98	6.3	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	97	97	0.0	90	94	4.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	98	100	2.0	91	100	9.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	92	93	1.1	89	96	7.6	70 - 130	30	
1,1-Dichloroethane	ND	5.0	97	98	1.0	89	93	4.4	70 - 130	30	
1,1-Dichloroethene	ND	5.0	91	93	2.2	79	84	6.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	96	98	2.1	93	97	4.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	93	94	1.1	85	96	12.2	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	93	95	2.1	89	97	8.6	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	94	97	3.1	93	103	10.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	97	100	3.0	95	100	5.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	95	97	2.1	84	96	13.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	96	97	1.0	91	98	7.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	94	95	1.1	91	98	7.4	70 - 130	30	
1,2-Dichloroethane	ND	5.0	96	96	0.0	89	95	6.5	70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	96	1.0	91	96	5.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	98	99	1.0	94	99	5.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	95	97	2.1	93	100	7.3	70 - 130	30	
1,3-Dichloropropane	ND	5.0	95	96	1.0	90	95	5.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	94	95	1.1	92	98	6.3	70 - 130	30	
2,2-Dichloropropane	ND	5.0	102	103	1.0	97	104	7.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	95	98	3.1	93	99	6.3	70 - 130	30	
2-Hexanone	ND	25	93	95	2.1	84	94	11.2	70 - 130	30	
2-Isopropyltoluene	ND	5.0	105	106	0.9	101	107	5.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	95	97	2.1	93	99	6.3	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	100	2.0	92	101	9.3	70 - 130	30	
Acetone	ND	10	90	94	4.3	86	88	2.3	70 - 130	30	
Acrylonitrile	ND	5.0	102	104	1.9	94	104	10.1	70 - 130	30	
Benzene	ND	1.0	94	95	1.1	90	95	5.4	70 - 130	30	
Bromobenzene	ND	5.0	93	95	2.1	90	96	6.5	70 - 130	30	
Bromochloromethane	ND	5.0	94	95	1.1	89	94	5.5	70 - 130	30	
Bromodichloromethane	ND	5.0	99	100	1.0	92	97	5.3	70 - 130	30	
Bromoform	ND	5.0	100	103	3.0	89	100	11.6	70 - 130	30	
Bromomethane	ND	5.0	89	90	1.1	102	101	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB17425

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	5.0	107	111	3.7	85	92	7.9	70 - 130	30
Carbon tetrachloride	ND	5.0	96	97	1.0	87	92	5.6	70 - 130	30
Chlorobenzene	ND	5.0	93	95	2.1	91	97	6.4	70 - 130	30
Chloroethane	ND	5.0	80	85	6.1	94	95	1.1	70 - 130	30
Chloroform	ND	5.0	96	96	0.0	89	93	4.4	70 - 130	30
Chloromethane	ND	5.0	84	84	0.0	78	81	3.8	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	96	96	0.0	90	96	6.5	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	97	98	1.0	93	98	5.2	70 - 130	30
Dibromochloromethane	ND	3.0	104	106	1.9	95	103	8.1	70 - 130	30
Dibromomethane	ND	5.0	94	94	0.0	89	95	6.5	70 - 130	30
Dichlorodifluoromethane	ND	5.0	82	86	4.8	75	79	5.2	70 - 130	30
Ethylbenzene	ND	1.0	95	96	1.0	92	98	6.3	70 - 130	30
Hexachlorobutadiene	ND	5.0	92	96	4.3	95	103	8.1	70 - 130	30
Isopropylbenzene	ND	1.0	98	100	2.0	94	99	5.2	70 - 130	30
m&p-Xylene	ND	2.0	96	99	3.1	95	101	6.1	70 - 130	30
Methyl ethyl ketone	ND	5.0	90	91	1.1	80	88	9.5	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	108	111	2.7	94	101	7.2	70 - 130	30
Methylene chloride	ND	5.0	89	92	3.3	78	83	6.2	70 - 130	30
Naphthalene	ND	5.0	99	101	2.0	101	103	2.0	70 - 130	30
n-Butylbenzene	ND	1.0	97	102	5.0	98	104	5.9	70 - 130	30
n-Propylbenzene	ND	1.0	95	99	4.1	93	99	6.3	70 - 130	30
o-Xylene	ND	2.0	97	99	2.0	96	102	6.1	70 - 130	30
p-Isopropyltoluene	ND	1.0	98	100	2.0	97	102	5.0	70 - 130	30
sec-Butylbenzene	ND	1.0	102	105	2.9	99	105	5.9	70 - 130	30
Styrene	ND	5.0	97	98	1.0	95	101	6.1	70 - 130	30
tert-Butylbenzene	ND	1.0	97	99	2.0	94	100	6.2	70 - 130	30
Tetrachloroethene	ND	5.0	91	94	3.2	92	98	6.3	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	99	101	2.0	96	101	5.1	70 - 130	30
Toluene	ND	1.0	93	94	1.1	92	96	4.3	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	94	96	2.1	82	88	7.1	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	97	1.0	92	98	6.3	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	116	118	1.7	103	115	11.0	70 - 130	30
Trichloroethene	ND	5.0	95	96	1.0	91	96	5.3	70 - 130	30
Trichlorofluoromethane	ND	5.0	95	98	3.1	103	103	0.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	98	104	5.9	91	96	5.3	70 - 130	30
Vinyl chloride	ND	5.0	94	95	1.1	89	93	4.4	70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	102	102	0.0	101	103	2.0	70 - 130	30
% Bromofluorobenzene	103	%	103	103	0.0	105	105	0.0	70 - 130	30
% Dibromofluoromethane	95	%	100	101	1.0	100	99	1.0	70 - 130	30
% Toluene-d8	103	%	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 444514 (ug/kg), QC Sample No: CB17678 (CB17429)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	61	65	6.3	60	57	5.1	30 - 130	30
Acenaphthene	ND	230	73	77	5.3	70	66	5.9	30 - 130	30
Acenaphthylene	ND	230	68	71	4.3	64	62	3.2	30 - 130	30
Anthracene	ND	230	75	78	3.9	71	72	1.4	30 - 130	30
Benz(a)anthracene	ND	230	74	77	4.0	70	72	2.8	30 - 130	30
Benzo(a)pyrene	ND	230	71	74	4.1	66	68	3.0	30 - 130	30
Benzo(b)fluoranthene	ND	230	76	80	5.1	68	70	2.9	30 - 130	30
Benzo(ghi)perylene	ND	230	72	76	5.4	68	69	1.5	30 - 130	30

QA/QC Data

SDG I.D.: GCB17425

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzo(k)fluoranthene	ND	230	73	76	4.0	70	72	2.8	30 - 130	30
Chrysene	ND	230	76	79	3.9	72	74	2.7	30 - 130	30
Dibenz(a,h)anthracene	ND	230	73	76	4.0	69	70	1.4	30 - 130	30
Fluoranthene	ND	230	75	78	3.9	71	72	1.4	30 - 130	30
Fluorene	ND	230	74	77	4.0	72	69	4.3	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	72	76	5.4	68	69	1.5	30 - 130	30
Naphthalene	ND	230	58	63	8.3	59	55	7.0	30 - 130	30
Phenanthrene	ND	230	74	77	4.0	70	70	0.0	30 - 130	30
Pyrene	ND	230	75	79	5.2	72	73	1.4	30 - 130	30
% 2-Fluorobiphenyl	60	%	60	63	4.9	57	55	3.6	30 - 130	30
% Nitrobenzene-d5	54	%	57	63	10.0	57	54	5.4	30 - 130	30
% Terphenyl-d14	61	%	64	66	3.1	60	62	3.3	30 - 130	30

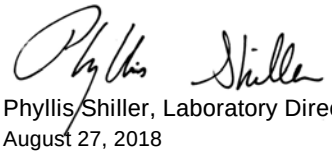
Comment:

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%)

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

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

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



Phyllis Shiller, Laboratory Director
August 27, 2018

Monday, August 27, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB17425 - 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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

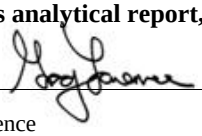
Laboratory Sample ID(s): CB17429 ***Sampling Date(s):*** 8/23/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Section: ETPH 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, August 27, 2018

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

August 27, 2018

SDG I.D.: GCB17425

SDG Comments

8270 Semi-volatile Organics: CB17429
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

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

QC Batch 444516 (Samples: CB17429): -----

The LCS/LCSD RPD exceeds the method criteria. The Batch MS/MSD RPD is acceptable. These analytes were not reported in the sample(s). No significant variability is suspected.

Instrument:

AU-XL1 08/23/18-1 Adam Werner, Chemist 08/23/18

CB17429

The initial calibration (ETPH726I) 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 444516 (CB17295)

CB17429

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: Ext. Petroleum H.C. (C9-C36)(31.0%)
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.

SVOA Narration

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

Instrument:

CHEM06 08/23/18-2 Matt Richard, Chemist 08/23/18

CB17429

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/BN_0816):
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 (CHEM06/0823_31A-BN_0816):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.cb14841

100% of target compounds met criteria.

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

August 27, 2018

SDG I.D.: GCB17425

SVOA Narration

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 444514 (CB17678)

CB17429

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%)

VOA Narration

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

Instrument:

CHEM03 08/24/18-1 Jane Li, Chemist 08/24/18

CB17429

Initial Calibration Verification (CHEM03/VT-L0820):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform 21% (20%), Chloroethane 21% (20%), Trichlorofluoromethane 22% (20%)
The following compounds did not meet recommended response factors: Acetone 0.093 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0824L02-VT-L0820):
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 444939 (CB17429)

CB17429

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

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 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:
[X] Email: LEWilley@TigheBond.com

Customer: Tighe + Bond
Address: 53 Court Street Suite 1100
Middletown CT

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Tighe + Bond

Project P.O: E-0755-448

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/23/14

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	PAH	ETPH	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
17425	SB-60 (9-10 FT)	S	9/23/14	10:35				3	1								
17426	SB-60 (17-19 FT)			10:40				3	1								
17427	SB-60 (25-27 FT)			10:50				3	1								
17428	SB-60 (31-33 FT)			11:05				3	1								
17429	SB-60 (40-42 FT)			11:35	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9/23/14	15:21

Comments, Special Requirements or Regulations:
DAS rules. Quote: TE0925178A
Please run SB-60 (40-42 FT) and hold other samples

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
[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

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

PHOENIX
Environmental Laboratories, Inc.

Thursday, September 06, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB20630 - CB20633

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

September 06, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/28/18	12:20
Location Code:	TIGHE-DAS	Received by:	SW	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB20628
Phoenix ID: CB20630

Project ID: ROCKVILLE MGP
Client ID: SB-40A (5.5-7.5 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Arsenic	1.84	0.69	mg/Kg	1	08/29/18	CPP	SW6010C
Barium	92.7	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Beryllium	0.52	0.27	mg/Kg	1	08/29/18	CPP	SW6010C
Cadmium	0.40	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Chromium	11.8	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Copper	13.4	0.7	mg/kg	1	08/29/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	8.80	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Lead	1.30	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Antimony	< 3.4	3.4	mg/Kg	1	08/29/18	CPP	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	08/29/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/29/18	TH	SW6010C
SPLP Barium	0.003	J 0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/29/18	TH	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Chromium	0.001	J 0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Copper	0.002	J 0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/29/18	RS	SW7470A
SPLP Nickel	0.002	J 0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/29/18	TH	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Vanadium	0.002	J 0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Zinc	0.003	J 0.010	mg/L	1	08/29/18	TH	SW6010C
Thallium	< 3.1	3.1	mg/Kg	1	08/29/18	CPP	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-40A (5.5-7.5 FT)

Phoenix I.D.: CB20630

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/29/18	I/I	SW3010A
Vanadium	49.3	0.34	mg/Kg	1	08/29/18	CPP	SW6010C
Zinc	54.9	0.7	mg/Kg	1	08/29/18	CPP	SW6010C
Percent Solid	90		%		08/28/18	AK	SW846-%Solid
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	08/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
SPLP Digestion Mercury	Completed				08/29/18	IQ/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/28/18	I	SW1312
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	230	54	mg/Kg	1	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	08/30/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.7	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	39	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	39	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	390	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-40A (5.5-7.5 FT)

Phoenix I.D.: CB20630

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon Disulfide	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	4.7	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	47	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	16	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	16	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	16	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	16	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	7.8	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	89		%	1	08/29/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	450	260	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	1600	260	ug/Kg	1	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-40A (5.5-7.5 FT)

Phoenix I.D.: CB20630

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	1100	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	380	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	870	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	290	260	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	310	260	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	930	260	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	510	260	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	47		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	43		%	1	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	42		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

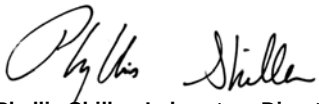
Comments:

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.

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
September 06, 2018
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 06, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/28/18	13:15
Location Code:	TIGHE-DAS	Received by:	SW	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB20628
Phoenix ID: CB20631

Project ID: ROCKVILLE MGP
Client ID: SB-39 (3-5 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	7.8	7.3	mg/Kg	10	08/29/18	CPP	SW6010C
Barium	55.3	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Beryllium	0.44	0.29	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	0.37	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	20.3	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Copper	40.7	7.3	mg/kg	10	08/29/18	CPP	SW6010C
Mercury	0.22	0.14	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	9.4	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Lead	68.8	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	08/29/18	TH	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/29/18	TH	SW6010C
SPLP Barium	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/29/18	TH	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Copper	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/29/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/29/18	TH	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Zinc	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	08/29/18	TH	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-39 (3-5 FT)

Phoenix I.D.: CB20631

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/29/18	I/I	SW3010A
Vanadium	26.4	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Zinc	67.3	7.3	mg/Kg	10	08/29/18	CPP	SW6010C
Percent Solid	86		%		08/28/18	AK	SW846-%Solid
Total Cyanide (SW9010C Distill.)	1.52	0.58	mg/Kg	1	08/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
SPLP Digestion Mercury	Completed				08/29/18	IQ/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/28/18	I	SW1312
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1200	290	mg/Kg	5	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	85		%	5	08/30/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	10	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	83	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	83	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	830	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-39 (3-5 FT)

Phoenix I.D.: CB20631

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon Disulfide	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	10	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	100	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	17	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	84		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	110		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	86		%	1	08/29/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Acenaphthene	ND	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Acenaphthylene	6500	1300	ug/Kg	5	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-39 (3-5 FT)

Phoenix I.D.: CB20631

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	1900	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Benz(a)anthracene	3500	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Benzo(a)pyrene	20000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	10000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	14000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	11000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Chrysene	5600	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	2400	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Fluoranthene	2500	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Fluorene	ND	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	15000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Naphthalene	ND	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Phenanthrene	ND	1300	ug/Kg	5	08/29/18	KCA	SW8270D
Pyrene	6700	1300	ug/Kg	5	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	61		%	5	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	56		%	5	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	52		%	5	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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 06, 2018
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 06, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/28/18	14:05
Location Code:	TIGHE-DAS	Received by:	SW	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB20628
Phoenix ID: CB20632

Project ID: ROCKVILLE MGP
Client ID: SB-53 (3-5 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	16.9	7.1	mg/Kg	10	08/29/18	CPP	SW6010C
Barium	57.7	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Beryllium	0.49	0.28	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	0.47	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	14.1	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Copper	99.8	0.7	mg/kg	1	08/29/18	TH	SW6010C
Mercury	0.26	0.15	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	25.2	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Lead	110	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	08/29/18	TH	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	08/29/18	TH	SW6010C
Vanadium	19.0	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Zinc	125	0.7	mg/Kg	1	08/29/18	TH	SW6010C
Percent Solid	88		%		08/28/18	AK	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.60	0.57	mg/Kg	1	08/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/31/18	JJ	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	130	56	mg/Kg	1	09/04/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	09/04/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	97		%	1	09/04/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-53 (3-5 FT)

Phoenix I.D.: CB20632

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromodichloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon Disulfide	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-53 (3-5 FT)

Phoenix I.D.: CB20632

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	105		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	84		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	115		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	90		%	1	08/29/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	720	260	ug/Kg	1	08/29/18	KCA	SW8270D
Anthracene	650	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	3700	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	4400	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	4100	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	2400	260	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	3400	260	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	4600	260	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	880	260	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	3700	260	ug/Kg	1	08/29/18	KCA	SW8270D
Fluorene	ND	260	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	2500	260	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	380	260	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	1500	260	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	5000	260	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	62		%	1	08/29/18	KCA	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-53 (3-5 FT)

Phoenix I.D.: CB20632

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	58		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

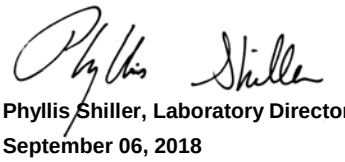
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

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

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



Phyllis Shiller, Laboratory Director
September 06, 2018
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 06, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/28/18	13:16
Location Code:	TIGHE-DAS	Received by:	SW	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB20628
Phoenix ID: CB20633

Project ID: ROCKVILLE MGP
Client ID: DUP-102

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	4.62	0.73	mg/Kg	1	08/29/18	TH	SW6010C
Barium	72.5	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Beryllium	0.51	0.29	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	1.10	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	16.4	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Copper	13.5	7.3	mg/kg	10	08/29/18	CPP	SW6010C
Mercury	0.06	0.03	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	9.9	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Lead	13.2	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	08/29/18	TH	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	08/29/18	TH	SW6010C
SPLP Barium	0.017	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	08/29/18	TH	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Copper	0.011	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	08/29/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	08/29/18	TH	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	08/29/18	TH	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	08/29/18	TH	SW6010C
SPLP Zinc	0.014	0.010	mg/L	1	08/29/18	TH	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	08/29/18	TH	SW6010C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP-102

Phoenix I.D.: CB20633

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				08/29/18	I/I	SW3010A
Vanadium	52.2	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Zinc	132	0.7	mg/Kg	1	08/29/18	TH	SW6010C
Percent Solid	84		%		08/28/18	AK	SW846-%Solid
Total Cyanide (SW9010C Distill.)	2.33	0.60	mg/Kg	1	08/30/18	O/GD	SW9012B
Soil Extraction SVOA PAH	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
SPLP Digestion Mercury	Completed				08/29/18	IQ/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				08/28/18	I	SW1312
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1100	300	mg/Kg	5	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	5	08/30/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	11	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	96	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	96	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	960	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP-102

Phoenix I.D.: CB20633

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromodichloromethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon Disulfide	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	11	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	110	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	38	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	38	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	38	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	38	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	38	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	19	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	85		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	114		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	86		%	1	08/29/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	3600	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Acenaphthene	ND	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Acenaphthylene	26000	1400	ug/Kg	5	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: DUP-102

Phoenix I.D.: CB20633

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Anthracene	7300	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Benz(a)anthracene	22000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Benzo(a)pyrene	44000	3900	ug/Kg	50	08/30/18	KCA	SW8270D
Benzo(b)fluoranthene	28000	3900	ug/Kg	50	08/30/18	KCA	SW8270D
Benzo(ghi)perylene	41000	3900	ug/Kg	50	08/30/18	KCA	SW8270D
Benzo(k)fluoranthene	34000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Chrysene	33000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	6200	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Fluoranthene	15000	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Fluorene	2400	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	38000	1000	ug/Kg	5	08/29/18	KCA	SW8270D
Naphthalene	5400	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Phenanthrene	2900	1400	ug/Kg	5	08/29/18	KCA	SW8270D
Pyrene	37000	1400	ug/Kg	5	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	5	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	67		%	5	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	60		%	5	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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 06, 2018
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

September 06, 2018

QA/QC Data

SDG I.D.: GCB20628

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 445243 (mg/L), QC Sample No: CB07656 (CB20630, CB20631, CB20633)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	88.1			91.2			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 445239 (mg/kg), QC Sample No: CB20611 (CB20630, CB20631, CB20632, CB20633)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	86.0	84.6	1.6	94.2			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 445221 (mg/kg), QC Sample No: CB20630 (CB20630, CB20631, CB20632, CB20633)														
ICP Metals - Soil														
Antimony	BRL	3.0	<3.4	<3.6	NC	96.6			81.1			75 - 125	30	
Arsenic	BRL	0.60	1.84	2.42	NC	102			89.7			75 - 125	30	
Barium	BRL	0.30	92.7	66.1	33.5	105			110			75 - 125	30	r
Beryllium	BRL	0.24	0.52	0.60	NC	106			95.7			75 - 125	30	
Cadmium	BRL	0.30	0.40	0.46	NC	101			93.7			75 - 125	30	
Chromium	BRL	0.30	11.8	14.9	23.2	111			95.7			75 - 125	30	
Copper	BRL	0.60	13.4	14.9	10.6	106			101			75 - 125	30	
Lead	BRL	0.30	1.30	2.30	NC	107			94.3			75 - 125	30	
Nickel	BRL	0.30	8.80	10.0	12.8	104			94.1			75 - 125	30	
Selenium	BRL	1.2	<1.4	<1.4	NC	81.8			98.1			75 - 125	30	
Silver	BRL	0.30	<0.34	<0.36	NC	101			91.3			75 - 125	30	
Thallium	BRL	2.7	<3.1	<3.2	NC	101			92.7			75 - 125	30	
Vanadium	BRL	0.30	49.3	53.0	7.20	117			107			75 - 125	30	
Zinc	BRL	0.60	54.9	58.6	6.50	101			95.7			75 - 125	30	
QA/QC Batch 445245 (mg/L), QC Sample No: CB20630 (CB20630, CB20631, CB20633)														
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	103			102			75 - 125	20	
Barium	BRL	0.010	0.003	0.003	NC	101			101			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	104			104			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			102			75 - 125	20	
Chromium	BRL	0.010	0.001	0.002	NC	101			101			75 - 125	20	
Copper	BRL	0.010	0.002	0.001	NC	100			101			75 - 125	20	
Lead	BRL	0.010	<0.010	<0.010	NC	102			102			75 - 125	20	
Nickel	BRL	0.010	0.002	0.001	NC	101			102			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	106			105			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.5			98.4			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	102			101			75 - 125	20	
Vanadium	BRL	0.010	0.002	0.001	NC	100			100			75 - 125	20	
Zinc	BRL	0.010	0.003	0.003	NC	102			101			75 - 125	20	

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

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QA/QC Report

September 06, 2018

QA/QC Data

SDG I.D.: GCB20628

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 445349 (mg/Kg), QC Sample No: CB19799 50X (CB20630)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.51	NC	97.7			112			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 445368 (mg/Kg), QC Sample No: CB20631 50X (CB20631, CB20632, CB20633)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	1.52	1.28	NC	103			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 06, 2018

QA/QC Data

SDG I.D.: GCB20628

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 445176 (ug/kg), QC Sample No: CB20488 (CB20630, CB20631, CB20632, CB20633)											
Semivolatiles - Soil											
2-Methylnaphthalene	ND	230	68	65	4.5	64	49	26.5	30 - 130	30	
Acenaphthene	ND	230	73	70	4.2	71	54	27.2	30 - 130	30	
Acenaphthylene	ND	130	71	67	5.8	68	51	28.6	30 - 130	30	
Anthracene	ND	230	75	72	4.1	73	55	28.1	30 - 130	30	
Benz(a)anthracene	ND	230	77	72	6.7	72	53	30.4	30 - 130	30	
Benzo(a)pyrene	ND	130	76	71	6.8	71	52	30.9	30 - 130	30	r
Benzo(b)fluoranthene	ND	160	77	72	6.7	72	54	28.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	79	78	1.3	69	53	26.2	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81	74	9.0	75	56	29.0	30 - 130	30	
Chrysene	ND	230	79	75	5.2	74	55	29.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	88	85	3.5	77	58	28.1	30 - 130	30	
Fluoranthene	ND	230	75	70	6.9	72	54	28.6	30 - 130	30	
Fluorene	ND	230	76	72	5.4	74	54	31.3	30 - 130	30	r
Indeno(1,2,3-cd)pyrene	ND	230	80	76	5.1	69	52	28.1	30 - 130	30	
Naphthalene	ND	230	61	59	3.3	61	47	25.9	30 - 130	30	
Phenanthrene	ND	130	74	71	4.1	71	54	27.2	30 - 130	30	
Pyrene	ND	230	76	71	6.8	72	55	26.8	30 - 130	30	
% 2-Fluorobiphenyl	62	%	65	62	4.7	64	48	28.6	30 - 130	30	
% Nitrobenzene-d5	54	%	62	58	6.7	61	45	30.2	30 - 130	30	
% Terphenyl-d14	67	%	63	59	6.6	60	46	26.4	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 445496 (ug/kg), QC Sample No: CB20635 (CB20630, CB20631, CB20632, CB20633)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	87	90	3.4	89	88	1.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	97	100	3.0	100	103	3.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	92	93	1.1	95	90	5.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	92	93	1.1	96	90	6.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	106	4.8	103	103	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	107	110	2.8	99	101	2.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	96	94	2.1	94	93	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	90	90	0.0	93	93	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	87	89	2.3	91	85	6.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	86	83	3.6	86	88	2.3	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	87	88	1.1	90	88	2.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	100	97	3.0	87	90	3.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	88	89	1.1	89	87	2.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	93	97	4.2	97	97	0.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	100	101	1.0	99	96	3.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	98	3.1	98	98	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB20628

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,3,5-Trimethylbenzene	ND	1.0	85	85	0.0	87	87	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	87	90	3.4	90	90	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	85	87	2.3	86	85	1.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	96	4.3	96	93	3.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	96	100	4.1	97	99	2.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	88	91	3.4	89	88	1.1	70 - 130	30	
2-Hexanone	ND	25	82	86	4.8	82	78	5.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	95	98	3.1	99	98	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	85	86	1.2	87	85	2.3	70 - 130	30	
4-Methyl-2-pentanone	ND	25	100	98	2.0	97	91	6.4	70 - 130	30	
Acetone	ND	10	79	81	2.5	69	62	10.7	70 - 130	30	m
Acrylonitrile	ND	5.0	104	105	1.0	106	104	1.9	70 - 130	30	
Benzene	ND	1.0	96	96	0.0	95	94	1.1	70 - 130	30	
Bromobenzene	ND	5.0	91	96	5.3	94	93	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	90	96	6.5	97	97	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	95	96	1.0	94	94	0.0	70 - 130	30	
Bromoform	ND	5.0	79	83	4.9	80	79	1.3	70 - 130	30	
Bromomethane	ND	5.0	104	110	5.6	98	106	7.8	70 - 130	30	
Carbon Disulfide	ND	5.0	104	108	3.8	103	106	2.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	93	97	4.2	95	96	1.0	70 - 130	30	
Chlorobenzene	ND	5.0	92	92	0.0	95	92	3.2	70 - 130	30	
Chloroethane	ND	5.0	115	120	4.3	77	78	1.3	70 - 130	30	
Chloroform	ND	5.0	91	94	3.2	91	91	0.0	70 - 130	30	
Chloromethane	ND	5.0	96	97	1.0	99	97	2.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	101	3.0	105	105	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	98	97	1.0	97	94	3.1	70 - 130	30	
Dibromochloromethane	ND	3.0	90	94	4.3	90	90	0.0	70 - 130	30	
Dibromomethane	ND	5.0	98	97	1.0	97	94	3.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	89	80	10.7	81	77	5.1	70 - 130	30	
Ethylbenzene	ND	1.0	87	90	3.4	90	89	1.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	88	72	20.0	95	95	0.0	70 - 130	30	
Isopropylbenzene	ND	1.0	86	90	4.5	89	89	0.0	70 - 130	30	
m&p-Xylene	ND	2.0	83	87	4.7	86	85	1.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	93	2.2	88	90	2.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	106	111	4.6	112	110	1.8	70 - 130	30	
Methylene chloride	ND	5.0	90	95	5.4	94	95	1.1	70 - 130	30	
Naphthalene	ND	5.0	93	96	3.2	91	94	3.2	70 - 130	30	
n-Butylbenzene	ND	1.0	87	84	3.5	91	90	1.1	70 - 130	30	
n-Propylbenzene	ND	1.0	86	88	2.3	90	89	1.1	70 - 130	30	
o-Xylene	ND	2.0	89	92	3.3	90	90	0.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	86	87	1.2	91	90	1.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	91	92	1.1	94	93	1.1	70 - 130	30	
Styrene	ND	5.0	84	85	1.2	85	85	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	90	92	2.2	91	90	1.1	70 - 130	30	
Tetrachloroethene	ND	5.0	97	92	5.3	99	97	2.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	100	104	3.9	105	102	2.9	70 - 130	30	
Toluene	ND	1.0	98	97	1.0	98	97	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	104	107	2.8	107	107	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	91	90	1.1	89	89	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	91	95	4.3	87	86	1.2	70 - 130	30	
Trichloroethene	ND	5.0	95	96	1.0	96	94	2.1	70 - 130	30	
Trichlorofluoromethane	ND	5.0	109	110	0.9	102	100	2.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	105	103	1.9	99	109	9.6	70 - 130	30	

QA/QC Data

SDG I.D.: GCB20628

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Vinyl chloride	ND	5.0	110	109	0.9	110	113	2.7	70 - 130	30
% 1,2-dichlorobenzene-d4	93	%	103	104	1.0	104	104	0.0	70 - 130	30
% Bromofluorobenzene	98	%	98	98	0.0	100	97	3.0	70 - 130	30
% Dibromofluoromethane	114	%	99	103	4.0	100	107	6.8	70 - 130	30
% Toluene-d8	89	%	109	108	0.9	105	107	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%.

QA/QC Batch 445319 (mg/Kg), QC Sample No: CB20739 (CB20630, CB20631, CB20633)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	74	87	16.1	94	89	5.5	60 - 120	30
% n-Pentacosane	62	%	75	88	16.0	89	83	7.0	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 445716 (mg/Kg), QC Sample No: CB23135 (CB20632)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	72	68	5.7				60 - 120	30
% n-Pentacosane	64	%	67	69	2.9				50 - 150	30

Comment:

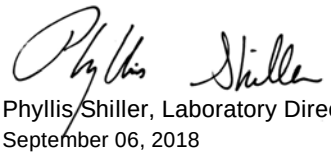
*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within QA/QC criteria.

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.

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 06, 2018

Thursday, September 06, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB20628 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB20630	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	1100	260	1000	1000	ug/Kg
CB20630	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1100	260	1000	1000	ug/Kg
CB20630	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1100	260	1000	1000	ug/Kg
CB20631	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	2400	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	15000	1000	7800	7800	ug/Kg
CB20631	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	20000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	10000	1000	7800	7800	ug/Kg
CB20631	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	15000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	2400	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	14000	1000	8400	8400	ug/Kg
CB20631	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	10000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	11000	1000	8400	8400	ug/Kg
CB20631	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3500	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	20000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	15000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	14000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	5600	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	2400	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3500	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	10000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	20000	1000	1000	1000	ug/Kg
CB20631	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	11000	1000	1000	1000	ug/Kg
CB20631	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1200	290	500	500	mg/Kg
CB20632	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	4400	260	1000	1000	ug/Kg
CB20632	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4400	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	4100	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3700	260	1000	1000	ug/Kg
CB20632	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	2500	260	1000	1000	ug/Kg
CB20632	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	4600	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	2400	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	3700	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	3400	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	4100	260	1000	1000	ug/Kg
CB20632	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	4400	260	1000	1000	ug/Kg
CB20632	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	16.9	7.1	10	10	mg/Kg
CB20632	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	16.9	7.1	10	10	mg/Kg
CB20633	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	38000	1000	7800	7800	ug/Kg
CB20633	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	6200	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	22000	1000	7800	7800	ug/Kg

Thursday, September 06, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB20628 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB20633	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	44000	3900	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	28000	3900	7800	7800	ug/Kg
CB20633	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	41000	3900	8400	8400	ug/Kg
CB20633	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	38000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	6200	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	34000	1000	8400	8400	ug/Kg
CB20633	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	28000	3900	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	44000	3900	1000	1000	ug/Kg
CB20633	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	22000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	41000	3900	1000	1000	ug/Kg
CB20633	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	33000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	6200	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	38000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	44000	3900	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	34000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	22000	1000	1000	1000	ug/Kg
CB20633	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	28000	3900	1000	1000	ug/Kg
CB20633	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1100	300	500	500	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

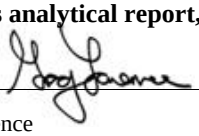
Laboratory Sample ID(s): CB20630-CB20633 ***Sampling Date(s):*** 8/28/2018

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: ICP 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 06, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 06, 2018

SDG I.D.: GCB20628

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.

Cyanide Narration

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

Instrument:

LACHAT 08/30/18-1 Dustin Harrison, Greg Danielewski, Chemist 08/30/18

CB20630, CB20631, CB20632, CB20633

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 445349 (CB19799)

CB20630

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

QC (Site Specific):

Batch 445368 (CB20631)

CB20631, CB20632, CB20633

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

ETPH Narration

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

Instrument:

AU-FID1 09/04/18-1 Jeff Bucko, Chemist 09/04/18

CB20632

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 08/30/18-1 Jeff Bucko, Chemist 08/30/18

CB20631, CB20633

The initial calibration (ETPH728I) RSD for the compound list was less than 30% except for the following compounds: None.

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RCP Certification Report

September 06, 2018

SDG I.D.: GCB20628

ETPH Narration

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

AU-XL2 08/29/18-1 Jeff Bucko, Chemist 08/29/18

CB20630

The initial calibration (ETPH814I) 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 445319 (CB20739)

CB20630, CB20631, CB20633

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 445716 (CB23135)

CB20632

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? Yes.

Instrument:

MERLIN 08/29/18 08:52 Rick Schweitzer, Chemist 08/29/18

CB20630, CB20631, CB20632, CB20633

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 445239 (CB20611)

CB20630, CB20631, CB20632, CB20633

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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

September 06, 2018

SDG I.D.: GCB20628

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%.

Batch 445243 (CB07656)

CB20630, CB20631, CB20633

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? No.

QC Batch 445221 (Samples: CB20630, CB20631, CB20632, CB20633): -----

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

Instrument:

ARCOS 08/29/18 08:56 Cindy Pearce, Emily Kolominskaya, Tina Hall, Chemist 08/29/

CB20630, CB20631, CB20632, CB20633

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 445221 (CB20630)

CB20630, CB20631, CB20632, CB20633

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

Batch 445245 (CB20630)

CB20630, CB20631, CB20633

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:

CHEM06 08/29/18-1 Keith Aloisa, Chemist 08/29/18

CB20630, CB20631, CB20632, CB20633

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

September 06, 2018

SDG I.D.: GCB20628

SVOA Narration

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/SPLIT_0827):
93% 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 (CHEM06/0829_04-SPLIT_0827):
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 08/30/18-1 Harry Mullin, Chemist 08/30/18

CB20633

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/bn_0827):
93% 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 (CHEM06/0830_04-bn_0827):
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 445176 (CB20488)

CB20630, CB20631, CB20632, CB20633

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%)

VOA Narration

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

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 06, 2018

SDG I.D.: GCB20628

VOA Narration

Instrument:

CHEM18 08/29/18-1 Jane Li, Chemist 08/29/18

CB20630, CB20631, CB20632, CB20633

Initial Calibration Verification (CHEM18/VT-M0817):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2,4-Trichlorobenzene 21% (20%), Acetone 34% (20%), Methyl Ethyl Ketone 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 (CHEM18/0829M02-VT-M0817):
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 445496 (CB20635)

CB20630, CB20631, CB20632, CB20633

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%.

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

Temp 2.1 °C Pg 1 of 1

CHAIN OF CUSTODY RECORD

PHOENIX
Environmental Laboratories, Inc.

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

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwing@tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street Suite 1100
Middletown CT

Project: Louisville Mop
Report to: Lynn Wiley
Invoice to: Tighe + Bond

Project P.O: 14-0755-MP9

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 8/19/14

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	STL	PAH	EPH	VOC 8260 w/ MTBE	SVOC 8270 w/ MTBE	Lead (Total)	GL Amber 8 oz. w/H3PO4	Soil VOA Vials ☒ methanol ☐ H2O	GL Soil container (1) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/hypo	Bacteria Bottle as is
20628	SB-40 (5.5-7.5 FT)	S	8/14/14	10:35							3	1										
20629	SB-40 (13-15 FT)			10:55								1										
20630	SB-40A (5.5-7.5')			12:20	X	X	X	X	X	X	3	1										
20631	SB-39 (3-5 FT)			13:15	X	X	X	X	X	X	3	1										
20632	SB-53 (3-5 FT)			14:05	X	X	X	X		X	3	1										
20633	DUP-108			13:16	X	X	X	X	X	X	3	1										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TTOum	8/20/18	1055

Comments, Special Requirements or Regulations:
DAS pricing
Please hold SB-40 samples
QUOTE #I0125073A

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.

Thursday, September 13, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB22894 - CB22897

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

September 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/30/18	8:20
Location Code:	TIGHE-DAS	Received by:	SW	08/31/18	14:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB22894
Phoenix ID: CB22894

Project ID: ROCKVILLE MGP
Client ID: HA-17 (1-2 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	1.06	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Arsenic	3.72	0.71	mg/Kg	1	09/01/18	EK	SW6010C
Barium	178	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Beryllium	0.33	0.29	mg/Kg	1	09/01/18	EK	SW6010C
Cadmium	2.39	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Chromium	21.0	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Copper	198	7.1	mg/kg	10	09/05/18	EK	SW6010C
Mercury	2.35	0.14	mg/Kg	1	09/04/18	RS	SW7471B
Nickel	14.2	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Lead	169	3.6	mg/Kg	10	09/05/18	EK	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	09/01/18	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	09/01/18	EK	SW6010C
SPLP Silver	< 0.010	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	09/12/18	TH	SW6010C
SPLP Barium	0.024	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Beryllium	< 0.001	0.001	mg/L	1	09/12/18	TH	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	09/12/18	TH	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Copper	0.127	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	09/12/18	RS	SW7470A
SPLP Nickel	< 0.010	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Lead	0.034	0.010	mg/L	1	09/12/18	EK	SW6010C
SPLP Antimony	< 0.005	0.005	mg/L	1	09/12/18	TH	SW6010C
SPLP Selenium	< 0.020	0.020	mg/L	1	09/12/18	TH	SW6010C
SPLP Thallium	< 0.005	0.005	mg/L	1	09/12/18	TH	SW6010C
SPLP Vanadium	< 0.010	0.010	mg/L	1	09/12/18	TH	SW6010C
SPLP Zinc	0.028	0.010	mg/L	1	09/12/18	TH	SW6010C
Thallium	< 3.2	3.2	mg/Kg	1	09/01/18	EK	SW6010C

Ver 2

Project ID: ROCKVILLE MGP
Client ID: HA-17 (1-2 FT)

Phoenix I.D.: CB22894

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
SPLP Metals Digestion	Completed				09/12/18	IQ/I	SW3010A
Vanadium	31.3	0.36	mg/Kg	1	09/01/18	EK	SW6010C
Zinc	278	7.1	mg/Kg	10	09/05/18	EK	SW6010C
Percent Solid	91		%		08/31/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	3.59	0.55	mg/Kg	1	09/04/18	EG	SW9012B
Soil Extraction SVOA PAH	Completed				08/31/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/04/18	RB/SV	SW3545A
Mercury Digestion	Completed				09/04/18	Q/I/Q	SW7471B
SPLP Digestion Mercury	Completed				09/12/18	Q/I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				09/11/18	I	SW1312
Total Metals Digest	Completed				08/31/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	350	270	mg/Kg	5	09/05/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	62		%	5	09/05/18	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	360	250	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthene	ND	250	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthylene	2600	250	ug/Kg	1	09/01/18	HM	SW8270D
Anthracene	1800	250	ug/Kg	1	09/01/18	HM	SW8270D
Benz(a)anthracene	5600	250	ug/Kg	1	09/01/18	HM	SW8270D
Benzo(a)pyrene	6200	250	ug/Kg	1	09/01/18	HM	SW8270D
Benzo(b)fluoranthene	7400	1000	ug/Kg	5	09/05/18	HM	SW8270D
Benzo(ghi)perylene	1100	250	ug/Kg	1	09/01/18	HM	SW8270D
Benzo(k)fluoranthene	2900	250	ug/Kg	1	09/01/18	HM	SW8270D
Chrysene	6300	250	ug/Kg	1	09/01/18	HM	SW8270D
Dibenz(a,h)anthracene	490	250	ug/Kg	1	09/01/18	HM	SW8270D
Fluoranthene	6200	250	ug/Kg	1	09/01/18	HM	SW8270D
Fluorene	450	250	ug/Kg	1	09/01/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	1300	250	ug/Kg	1	09/01/18	HM	SW8270D
Naphthalene	580	250	ug/Kg	1	09/01/18	HM	SW8270D
Phenanthrene	5000	250	ug/Kg	1	09/01/18	HM	SW8270D
Pyrene	12000	1200	ug/Kg	5	09/05/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	1	09/01/18	HM	30 - 130 %
% Nitrobenzene-d5	54		%	1	09/01/18	HM	30 - 130 %
% Terphenyl-d14	55		%	1	09/01/18	HM	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: HA-17 (1-2 FT)

Phoenix I.D.: CB22894

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:

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.

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
September 13, 2018
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 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/30/18	9:35
Location Code:	TIGHE-DAS	Received by:	SW	08/31/18	14:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB22894
Phoenix ID: CB22895

Project ID: ROCKVILLE MGP
Client ID: HA-16 (0.5-2.5 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Arsenic	18.6	0.81	mg/Kg	1	09/01/18	EK	SW6010C
Barium	77.9	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Beryllium	0.37	0.32	mg/Kg	1	09/01/18	EK	SW6010C
Cadmium	0.77	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Chromium	15.6	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Copper	42.7	0.8	mg/kg	1	09/01/18	EK	SW6010C
Mercury	1.09	0.16	mg/Kg	1	09/04/18	RS	SW7471B
Nickel	10.2	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Lead	101	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Antimony	< 4.1	4.1	mg/Kg	1	09/01/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	09/01/18	EK	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	09/01/18	EK	SW6010C
Vanadium	27.3	0.41	mg/Kg	1	09/01/18	EK	SW6010C
Zinc	101	0.8	mg/Kg	1	09/01/18	EK	SW6010C
Percent Solid	81		%		08/31/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	56.7	1.23	mg/Kg	2	09/04/18	EG	SW9012B
Soil Extraction SVOA PAH	Completed				08/31/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/04/18	RB/SV	SW3545A
Mercury Digestion	Completed				09/04/18	Q/I/Q	SW7471B
Total Metals Digest	Completed				08/31/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1100	300	mg/Kg	5	09/05/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	09/05/18	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: HA-16 (0.5-2.5 FT)

Phoenix I.D.: CB22895

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polynuclear Aromatic HC							
2-Methylnaphthalene	360	280	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthene	ND	280	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthylene	2900	280	ug/Kg	1	09/01/18	HM	SW8270D
Anthracene	2000	280	ug/Kg	1	09/01/18	HM	SW8270D
Benz(a)anthracene	13000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Benzo(a)pyrene	18000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Benzo(b)fluoranthene	22000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Benzo(ghi)perylene	13000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Benzo(k)fluoranthene	6400	280	ug/Kg	1	09/01/18	HM	SW8270D
Chrysene	15000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Dibenz(a,h)anthracene	3300	280	ug/Kg	1	09/01/18	HM	SW8270D
Fluoranthene	17000	2800	ug/Kg	10	09/05/18	HM	SW8270D
Fluorene	390	280	ug/Kg	1	09/01/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	12000	1000	ug/Kg	10	09/05/18	HM	SW8270D
Naphthalene	630	280	ug/Kg	1	09/01/18	HM	SW8270D
Phenanthrene	4700	280	ug/Kg	1	09/01/18	HM	SW8270D
Pyrene	26000	2800	ug/Kg	10	09/05/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	62		%	1	09/01/18	HM	30 - 130 %
% Nitrobenzene-d5	58		%	1	09/01/18	HM	30 - 130 %
% Terphenyl-d14	51		%	1	09/01/18	HM	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.

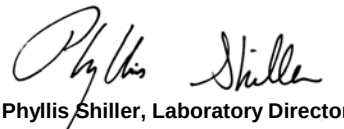
Comments:

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:
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
September 13, 2018
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 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/30/18	11:00
Location Code:	TIGHE-DAS	Received by:	SW	08/31/18	14:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB22894
Phoenix ID: CB22896

Project ID: ROCKVILLE MGP
Client ID: HA-12 (2-4 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.44	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Arsenic	6.16	0.88	mg/Kg	1	09/01/18	EK	SW6010C
Barium	74.6	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Beryllium	0.53	0.35	mg/Kg	1	09/01/18	EK	SW6010C
Cadmium	0.56	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Chromium	33.0	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Copper	37.2	0.9	mg/kg	1	09/01/18	EK	SW6010C
Mercury	0.33	0.16	mg/Kg	1	09/04/18	RS	SW7471B
Nickel	8.79	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Lead	123	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Antimony	< 4.4	4.4	mg/Kg	1	09/01/18	EK	SW6010C
Selenium	< 1.8	1.8	mg/Kg	1	09/01/18	EK	SW6010C
Thallium	< 4.0	4.0	mg/Kg	1	09/01/18	EK	SW6010C
Vanadium	29.9	0.44	mg/Kg	1	09/01/18	EK	SW6010C
Zinc	89.5	0.9	mg/Kg	1	09/01/18	EK	SW6010C
Percent Solid	78		%		08/31/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	0.58	0.58	mg/Kg	1	09/04/18	EG	SW9012B
Soil Extraction SVOA PAH	Completed				08/31/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/04/18	RB/SV	SW3545A
Mercury Digestion	Completed				09/04/18	Q/I/Q	SW7471B
Total Metals Digest	Completed				08/31/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	63	mg/Kg	1	09/05/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	09/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	09/05/18	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: HA-12 (2-4 FT)

Phoenix I.D.: CB22896

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	290	ug/Kg	1	09/04/18	HM	SW8270D
Acenaphthene	ND	290	ug/Kg	1	09/04/18	HM	SW8270D
Acenaphthylene	610	290	ug/Kg	1	09/04/18	HM	SW8270D
Anthracene	ND	290	ug/Kg	1	09/04/18	HM	SW8270D
Benz(a)anthracene	1600	290	ug/Kg	1	09/04/18	HM	SW8270D
Benzo(a)pyrene	1900	290	ug/Kg	1	09/04/18	HM	SW8270D
Benzo(b)fluoranthene	1700	290	ug/Kg	1	09/04/18	HM	SW8270D
Benzo(ghi)perylene	1200	290	ug/Kg	1	09/04/18	HM	SW8270D
Benzo(k)fluoranthene	1500	290	ug/Kg	1	09/04/18	HM	SW8270D
Chrysene	2000	290	ug/Kg	1	09/04/18	HM	SW8270D
Dibenz(a,h)anthracene	330	290	ug/Kg	1	09/04/18	HM	SW8270D
Fluoranthene	2600	290	ug/Kg	1	09/04/18	HM	SW8270D
Fluorene	ND	290	ug/Kg	1	09/04/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	1400	290	ug/Kg	1	09/04/18	HM	SW8270D
Naphthalene	ND	290	ug/Kg	1	09/04/18	HM	SW8270D
Phenanthrene	1200	290	ug/Kg	1	09/04/18	HM	SW8270D
Pyrene	2700	290	ug/Kg	1	09/04/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	55		%	1	09/04/18	HM	30 - 130 %
% Nitrobenzene-d5	46		%	1	09/04/18	HM	30 - 130 %
% Terphenyl-d14	55		%	1	09/04/18	HM	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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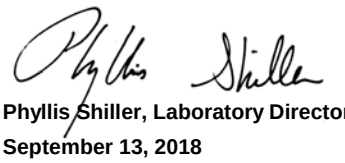

Phyllis Shiller, Laboratory Director
September 13, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 13, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		08/30/18	9:35
Location Code:	TIGHE-DAS	Received by:	SW	08/31/18	14:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB22894
Phoenix ID: CB22897

Project ID: ROCKVILLE MGP
Client ID: HA-DUP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Arsenic	18.6	0.77	mg/Kg	1	09/01/18	EK	SW6010C
Barium	83.4	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Beryllium	0.41	0.31	mg/Kg	1	09/01/18	EK	SW6010C
Cadmium	0.78	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Chromium	15.7	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Copper	44.0	0.8	mg/kg	1	09/01/18	EK	SW6010C
Mercury	0.63	0.13	mg/Kg	1	09/04/18	RS	SW7471B
Nickel	10.9	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Lead	110	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Antimony	< 3.8	3.8	mg/Kg	1	09/01/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	09/01/18	EK	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	09/01/18	EK	SW6010C
Vanadium	29.3	0.38	mg/Kg	1	09/01/18	EK	SW6010C
Zinc	107	0.8	mg/Kg	1	09/01/18	EK	SW6010C
Percent Solid	92		%		08/31/18	q	SW846-%Solid
Total Cyanide (SW9010C Distill.)	124	2.72	mg/Kg	5	09/04/18	EG	SW9012B
Soil Extraction SVOA PAH	Completed				08/31/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				09/04/18	RB/SV	SW3545A
Mercury Digestion	Completed				09/04/18	Q/I/Q	SW7471B
Total Metals Digest	Completed				08/31/18	L/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1300	270	mg/Kg	5	09/05/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	09/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	Diluted Out		%	5	09/05/18	JRB	50 - 150 %

Ver 2

Project ID: ROCKVILLE MGP
Client ID: HA-DUP

Phoenix I.D.: CB22897

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polynuclear Aromatic HC							
2-Methylnaphthalene	310	250	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthene	560	250	ug/Kg	1	09/01/18	HM	SW8270D
Acenaphthylene	3000	250	ug/Kg	1	09/01/18	HM	SW8270D
Anthracene	2900	250	ug/Kg	1	09/01/18	HM	SW8270D
Benz(a)anthracene	18000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Benzo(a)pyrene	23000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Benzo(b)fluoranthene	21000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Benzo(ghi)perylene	19000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Benzo(k)fluoranthene	17000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Chrysene	22000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Dibenz(a,h)anthracene	3800	250	ug/Kg	1	09/01/18	HM	SW8270D
Fluoranthene	28000	2500	ug/Kg	10	09/04/18	HM	SW8270D
Fluorene	730	250	ug/Kg	1	09/01/18	HM	SW8270D
Indeno(1,2,3-cd)pyrene	18000	1000	ug/Kg	10	09/04/18	HM	SW8270D
Naphthalene	590	250	ug/Kg	1	09/01/18	HM	SW8270D
Phenanthrene	9700	2500	ug/Kg	10	09/04/18	HM	SW8270D
Pyrene	38000	2500	ug/Kg	10	09/04/18	HM	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	60		%	1	09/01/18	HM	30 - 130 %
% Nitrobenzene-d5	56		%	1	09/01/18	HM	30 - 130 %
% Terphenyl-d14	42		%	1	09/01/18	HM	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.

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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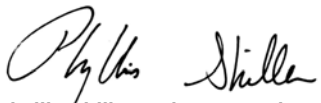

Phyllis Shiller, Laboratory Director
September 13, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

September 13, 2018

QA/QC Data

SDG I.D.: GCB22894

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 447036 (mg/L), QC Sample No: CB22434 (CB22894)														
ICP Metals - SPLP Extraction														
Antimony	BRL	0.005	0.011	0.009	NC	103			103			75 - 125	20	
Arsenic	BRL	0.004	0.006	0.005	NC	99.3			102			75 - 125	20	
Barium	BRL	0.010	0.021	0.018	NC	106			108			75 - 125	20	
Beryllium	BRL	0.001	<0.001	<0.001	NC	106			108			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	101			103			75 - 125	20	
Chromium	BRL	0.010	0.002	0.002	NC	99.5			102			75 - 125	20	
Copper	BRL	0.010	0.026	0.025	NC	103			105			75 - 125	20	
Lead	BRL	0.010	0.004	0.003	NC	100			102			75 - 125	20	
Nickel	BRL	0.010	0.004	0.004	NC	99.5			102			75 - 125	20	
Selenium	BRL	0.020	<0.020	<0.020	NC	100			103			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	102			103			75 - 125	20	
Thallium	BRL	0.005	<0.005	<0.005	NC	98.6			99.3			75 - 125	20	
Vanadium	BRL	0.010	0.006	0.007	NC	102			103			75 - 125	20	
Zinc	BRL	0.010	0.041	0.026	NC	101			103			75 - 125	20	
QA/QC Batch 445877 (mg/kg), QC Sample No: CB22819 (CB22894, CB22895, CB22896, CB22897)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	95.6	107	11.3	108			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 445742 (mg/kg), QC Sample No: CB22865 (CB22894, CB22895, CB22896, CB22897)														
ICP Metals - Soil														
Antimony	BRL	3.2	<4.1	<4.0	NC	115			89.6			75 - 125	30	
Arsenic	BRL	0.63	4.27	4.19	1.90	98.4			93.1			75 - 125	30	
Barium	BRL	0.32	328	323	1.50	105			98.9			75 - 125	30	
Beryllium	BRL	0.25	2.29	2.27	0.90	102			99.5			75 - 125	30	
Cadmium	BRL	0.32	<0.41	<0.40	NC	97.7			95.7			75 - 125	30	
Chromium	BRL	0.32	43.3	41.6	4.00	108			100			75 - 125	30	
Copper	BRL	0.63	10.5	10.8	2.80	108			111			75 - 125	30	
Lead	BRL	0.32	5.72	5.99	4.60	102			99.9			75 - 125	30	
Nickel	BRL	0.32	21.8	21.1	3.30	103			97.3			75 - 125	30	
Selenium	BRL	1.3	<1.6	<1.6	NC	81.5			74.2			75 - 125	30	m
Silver	BRL	0.32	<0.41	<0.40	NC	102			99.9			75 - 125	30	
Thallium	BRL	2.8	<3.7	<3.6	NC	101			99.4			75 - 125	30	
Vanadium	BRL	0.32	53.1	51.7	2.70	114			102			75 - 125	30	
Zinc	BRL	0.63	52.7	50.9	3.50	98.9			96.1			75 - 125	30	
QA/QC Batch 447033 (mg/L), QC Sample No: CB28295 (CB22894)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	121			79.6			80 - 120	20	l
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														

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

Environmental Laboratories, Inc.
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QA/QC Report

September 13, 2018

QA/QC Data

SDG I.D.: GCB22894

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 445776 (mg/Kg), QC Sample No: CB22894 50X (CB22894, CB22895, CB22896, CB22897)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	3.59	3.60	0.30	108			96.8			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 13, 2018

QA/QC Data

SDG I.D.: GCB22894

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 445927 (mg/Kg), QC Sample No: CB22818 (CB22894, CB22895, CB22896, CB22897)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	68	62	9.2	65	66	1.5	60 - 120	30
% n-Pentacosane	70	%	76	67	12.6	77	72	6.7	50 - 150	30
Comment:										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 445712 (ug/kg), QC Sample No: CB23157 (CB22894, CB22895, CB22896, CB22897)										
Semivolatiles - Soil										
2-Methylnaphthalene	ND	230	57	64	11.6	63	60	4.9	30 - 130	30
Acenaphthene	ND	230	65	73	11.6	70	68	2.9	30 - 130	30
Acenaphthylene	ND	130	62	69	10.7	62	60	3.3	30 - 130	30
Anthracene	ND	230	68	75	9.8	59	60	1.7	30 - 130	30
Benz(a)anthracene	ND	230	67	75	11.3	73	66	10.1	30 - 130	30
Benzo(a)pyrene	ND	130	66	74	11.4	67	66	1.5	30 - 130	30
Benzo(b)fluoranthene	ND	160	68	77	12.4	82	83	1.2	30 - 130	30
Benzo(ghi)perylene	ND	230	67	76	12.6	41	35	15.8	30 - 130	30
Benzo(k)fluoranthene	ND	230	70	78	10.8	78	83	6.2	30 - 130	30
Chrysene	ND	230	69	78	12.2	69	65	6.0	30 - 130	30
Dibenz(a,h)anthracene	ND	130	75	84	11.3	52	49	5.9	30 - 130	30
Fluoranthene	ND	230	67	74	9.9	57	56	1.8	30 - 130	30
Fluorene	ND	230	67	75	11.3	71	69	2.9	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	68	76	11.1	47	40	16.1	30 - 130	30
Naphthalene	ND	230	51	59	14.5	59	55	7.0	30 - 130	30
Phenanthrene	ND	130	66	74	11.4	65	61	6.3	30 - 130	30
Pyrene	ND	230	68	75	9.8	61	61	0.0	30 - 130	30
% 2-Fluorobiphenyl	62	%	57	66	14.6	63	60	4.9	30 - 130	30
% Nitrobenzene-d5	56	%	49	57	15.1	59	48	20.6	30 - 130	30
% Terphenyl-d14	63	%	58	63	8.3	56	57	1.8	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%)										

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 13, 2018

Thursday, September 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB22894 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB22894	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	6200	250	1000	1000	ug/Kg
CB22894	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1300	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	5600	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	6200	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	7400	1000	1000	1000	ug/Kg
CB22894	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	6300	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1100	250	1000	1000	ug/Kg
CB22894	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1300	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	7400	1000	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	2900	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	6200	250	1000	1000	ug/Kg
CB22894	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	5600	250	1000	1000	ug/Kg
CB22895	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	12000	1000	7800	7800	ug/Kg
CB22895	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	3300	280	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	22000	1000	7800	7800	ug/Kg
CB22895	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	13000	1000	7800	7800	ug/Kg
CB22895	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	12000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	3300	280	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	13000	1000	8400	8400	ug/Kg
CB22895	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	22000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	13000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	12000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	3300	280	1000	1000	ug/Kg
CB22895	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	15000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	13000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	22000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CB22895	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	6400	280	1000	1000	ug/Kg
CB22895	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	13000	1000	1000	1000	ug/Kg
CB22895	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1100	300	500	500	mg/Kg
CB22895	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	18.6	0.81	10	10	mg/Kg
CB22895	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	18.6	0.81	10	10	mg/Kg
CB22896	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	1900	290	1000	1000	ug/Kg
CB22896	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1400	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1600	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1900	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1700	290	1000	1000	ug/Kg
CB22896	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	2000	290	1000	1000	ug/Kg

Thursday, September 13, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB22894 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB22896	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	1400	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	1200	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1700	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	1500	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	1900	290	1000	1000	ug/Kg
CB22896	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	1600	290	1000	1000	ug/Kg
CB22897	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC I/C (mg/kg) / APS Organics	18000	1000	7800	7800	ug/Kg
CB22897	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC I/C (mg/kg) / APS Organics	3800	250	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	21000	1000	7800	7800	ug/Kg
CB22897	$8100SMR	Benzo(a)pyrene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	23000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benz(a)anthracene	CT / RSR DEC I/C (mg/kg) / Semivolatiles	18000	1000	7800	7800	ug/Kg
CB22897	$8100SMR	Benzo(ghi)perylene	CT / RSR DEC RES (mg/kg) / APS Organics	19000	1000	8400	8400	ug/Kg
CB22897	$8100SMR	Dibenz(a,h)anthracene	CT / RSR DEC RES (mg/kg) / APS Organics	3800	250	1000	1000	ug/Kg
CB22897	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	18000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(k)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	17000	1000	8400	8400	ug/Kg
CB22897	$8100SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	21000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	23000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(ghi)perylene	CT / RSR GB (mg/kg) / APS Organics	19000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Chrysene	CT / RSR GB (mg/kg) / APS Organics	22000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Dibenz(a,h)anthracene	CT / RSR GB (mg/kg) / APS Organics	3800	250	1000	1000	ug/Kg
CB22897	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GB (mg/kg) / APS Organics	18000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(b)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	21000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(k)fluoranthene	CT / RSR GB (mg/kg) / Semivolatiles	17000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benz(a)anthracene	CT / RSR GB (mg/kg) / Semivolatiles	18000	1000	1000	1000	ug/Kg
CB22897	$8100SMR	Benzo(a)pyrene	CT / RSR GB (mg/kg) / Semivolatiles	23000	1000	1000	1000	ug/Kg
CB22897	$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	1300	270	500	500	mg/Kg
CB22897	AS-SM	Arsenic	CT / RSR DEC I/C (mg/kg) / Inorganics	18.6	0.77	10	10	mg/Kg
CB22897	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	18.6	0.77	10	10	mg/Kg

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

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

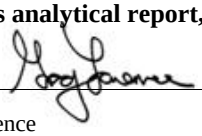
Laboratory Sample ID(s): CB22894-CB22897 ***Sampling Date(s):*** 8/30/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 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:** Thursday, September 13, 2018

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

September 13, 2018

SDG I.D.: GCB22894

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.

Cyanide Narration

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

Instrument:

LACHAT 09/04/18-1 Eric Geyer, Chemist 09/04/18

CB22894, CB22895, CB22896, CB22897

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 445776 (CB22894)

CB22894, CB22895, CB22896, CB22897

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

ETPH Narration

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

Instrument:

AU-FID1 09/04/18-1 Jeff Bucko, Chemist 09/04/18

CB22896

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID1 09/05/18-1 Jeff Bucko, Chemist 09/05/18

CB22895, CB22897

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 09/05/18-1 Jeff Bucko, Chemist 09/05/18

CB22894

The initial calibration (ETPH728I) 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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RCP Certification Report

September 13, 2018

SDG I.D.: GCB22894

ETPH Narration

QC (Batch Specific):

Batch 445927 (CB22818)

CB22894, CB22895, CB22896, CB22897

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 09/04/18 08:15 Rick Schweitzer, Chemist 09/04/18

CB22894, CB22895, CB22896, CB22897

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 09/12/18 07:54 Rick Schweitzer, Chemist 09/12/18

CB22894

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 445877 (CB22819)

CB22894, CB22895, CB22896, CB22897

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

Batch 447033 (CB28295)

CB22894

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Certification Report

September 13, 2018

SDG I.D.: GCB22894

Mercury Narration

All LCS recoveries were within 80 - 120 with the following exceptions: Mercury(121%)
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 09/01/18 09:23 Emily Kolominskaya, Chemist 09/01/18

CB22894, CB22895, CB22896, CB22897

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 09/05/18 08:38 Emily Kolominskaya, Chemist 09/05/18

CB22894

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 09/12/18 10:42 Emily Kolominskaya, Tina Hall, Chemist 09/12/18

CB22894

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 445742 (CB22865)

CB22894, CB22895, CB22896, CB22897

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

Batch 447036 (CB22434)

CB22894

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

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Tel. (860) 645-1102 Fax (860) 645-0823

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RCP Certification Report

September 13, 2018

SDG I.D.: GCB22894

SVOA Narration

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

Instrument:

CHEM05 09/01/18-1 Keith Aloisa, Chemist 09/01/18

CB22894

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM05/SPLIT_0827A):
94% 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 (CHEM05/0901_02-SPLIT_0827A):
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.

CHEM05 09/05/18-1 Harry Mullin, Chemist 09/05/18

CB22894, CB22895

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM05/BN_SPLITA21a):
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 (CHEM05/0905_06-BN_SPLITA21a):
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.

CHEM06 09/04/18-1 Harry Mullin, Chemist 09/04/18

CB22896, CB22897

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

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RCP Certification Report

September 13, 2018

SDG I.D.: GCB22894

SVOA Narration

Initial Calibration Verification (CHEM06/BN_0827):
93% 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 (CHEM06/0904_02-BN_0827):
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.

CHEM28 09/01/18-1 Keith Aloisa, Chemist 09/01/18

CB22895, CB22897

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM28/bnSPLIT0821TEST):
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 (CHEM28/0901_03A-bnSPLIT0821TEST):
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 445712 (CB23157)

CB22894, CB22895, CB22896, CB22897

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%)

Temperature Narration

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

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ No ☐
Temp 2.0 °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

Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEWilley@tighebond.com

Customer: Tighe & Bond
Address: 213 Court St Suite 1100
Middletown CT

Project: Rockville mGP
Report to: Lynn Willey
Invoice to: Tighe & Bond

Project P.O: E-0755-493

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 8/30/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PAH	ETPH	RSR metals	Cyanide	Soil VOA Vials [ ] 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
22894	HA-17 (1-2 ft)	S	8/30/18	9:30	X	X	X	X		1								
22895	HA-16 (0.5-2.5ft)			9:35	X	X	X	X		1								
22896	HA-12 (2-4 ft)			11:00	X	X	X	X		1								
22897	HA-DUP			9:35	X	X	X	X		1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	8/31/18	1307
	[signature]	8/31/18	1400

Comments, Special Requirements or Regulations:
DAS Pricing
Quote: TI0125073A

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

Client Services

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Tuesday, September 11, 2018 8:45 AM
To: Client Services
Subject: SPLP Metals GCB22894

Good morning Sarah,

Can you please run GCB22894, HA-17 (1-2ft), for SPLP RSR metals?

Thank you,
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn



PHOENIX
Environmental Laboratories, Inc.

Thursday, October 04, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB62410

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

October 04, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/01/18	10:50
Location Code:	TIGHE-DAS	Received by:	B	10/01/18	18:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB62410
Phoenix ID: CB62410

Project ID: ROCKVILLE MGP
Client ID: SB-63 (35-37FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	88		%		10/01/18	AK	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/01/18	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/01/18	BB/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	10/02/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	10/02/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	10/02/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	10/02/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-63 (35-37FT)

Phoenix I.D.: CB62410

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
2-Chlorotoluene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	10/02/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
4-Chlorotoluene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	10/02/18	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	10/02/18	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Bromobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Bromodichloromethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	10/02/18	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Isopropylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
m&p-Xylene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	10/02/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	10/02/18	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	10/02/18	JLI	SW8260C
Naphthalene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
o-Xylene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	10/02/18	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Total Xylenes	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-63 (35-37FT)

Phoenix I.D.: CB62410

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	10/02/18	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	10/02/18	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	10/02/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	10/02/18	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	10/02/18	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/02/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/02/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	10/02/18	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	10/02/18	WB	30 - 130 %
% Nitrobenzene-d5	58		%	1	10/02/18	WB	30 - 130 %
% Terphenyl-d14	61		%	1	10/02/18	WB	30 - 130 %
Field Extraction	Completed				10/01/18		SW5035A

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

Comments:

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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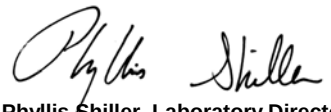


Phyllis Shiller, Laboratory Director
October 04, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1

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 04, 2018

QA/QC Data

SDG I.D.: GCB62410

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 449730 (ug/kg), QC Sample No: CB61557 (CB62410)										
Semivolatiles - Soil										
2-Methylnaphthalene	ND	230	66	67	1.5	68	64	6.1	30 - 130	30
Acenaphthene	ND	230	75	78	3.9	71	67	5.8	30 - 130	30
Acenaphthylene	ND	130	69	72	4.3	66	63	4.7	30 - 130	30
Anthracene	ND	230	77	78	1.3	74	70	5.6	30 - 130	30
Benz(a)anthracene	ND	230	74	75	1.3	73	69	5.6	30 - 130	30
Benzo(a)pyrene	ND	130	75	76	1.3	72	68	5.7	30 - 130	30
Benzo(b)fluoranthene	ND	160	77	77	0.0	75	70	6.9	30 - 130	30
Benzo(ghi)perylene	ND	230	75	75	0.0	52	46	12.2	30 - 130	30
Benzo(k)fluoranthene	ND	230	80	80	0.0	72	71	1.4	30 - 130	30
Chrysene	ND	230	77	76	1.3	75	72	4.1	30 - 130	30
Dibenz(a,h)anthracene	ND	130	84	83	1.2	61	54	12.2	30 - 130	30
Fluoranthene	ND	230	78	78	0.0	76	67	12.6	30 - 130	30
Fluorene	ND	230	76	78	2.6	75	69	8.3	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	76	77	1.3	56	48	15.4	30 - 130	30
Naphthalene	ND	230	65	67	3.0	67	64	4.6	30 - 130	30
Phenanthrene	ND	130	74	77	4.0	73	68	7.1	30 - 130	30
Pyrene	ND	230	79	78	1.3	78	71	9.4	30 - 130	30
% 2-Fluorobiphenyl	60	%	65	68	4.5	60	58	3.4	30 - 130	30
% Nitrobenzene-d5	56	%	67	69	2.9	70	67	4.4	30 - 130	30
% Terphenyl-d14	62	%	66	65	1.5	60	57	5.1	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 449736 (mg/Kg), QC Sample No: CB61602 (CB62410)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	87	83	4.7	110	119	7.9	60 - 120	30
% n-Pentacosane	76	%	69	67	2.9	77	84	8.7	50 - 150	30
Comment:										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 449891 (ug/kg), QC Sample No: CB61701 (CB62410)										
Volatiles - Soil										
1,1,1,2-Tetrachloroethane	ND	5.0	97	93	4.2	92	94	2.2	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	102	98	4.0	99	98	1.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	92	90	2.2	94	99	5.2	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	91	89	2.2	92	96	4.3	70 - 130	30
1,1-Dichloroethane	ND	5.0	96	93	3.2	94	94	0.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	87	83	4.7	80	81	1.2	70 - 130	30
1,1-Dichloropropene	ND	5.0	103	98	5.0	100	101	1.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	93	89	4.4	86	87	1.2	70 - 130	30

QA/QC Data

SDG I.D.: GCB62410

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichloropropane	ND	5.0	84	84	0.0	87	92	5.6	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	97	93	4.2	85	85	0.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	96	90	6.5	90	90	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	91	94	3.2	92	100	8.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	91	92	1.1	95	98	3.1	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	92	87	5.6	86	87	1.2	70 - 130	30	
1,2-Dichloroethane	ND	5.0	95	92	3.2	96	99	3.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	97	92	5.3	96	98	2.1	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	95	90	5.4	91	91	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	93	88	5.5	86	86	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	90	87	3.4	91	93	2.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	86	6.7	84	84	0.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	112	108	3.6	103	105	1.9	70 - 130	30	
2-Chlorotoluene	ND	5.0	93	88	5.5	89	90	1.1	70 - 130	30	
2-Hexanone	ND	25	83	84	1.2	89	97	8.6	70 - 130	30	
2-Isopropyltoluene	ND	5.0	108	102	5.7	103	104	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	93	88	5.5	87	87	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	92	93	1.1	97	104	7.0	70 - 130	30	
Acetone	ND	10	61	58	5.0	58	65	11.4	70 - 130	30	l,m
Acrylonitrile	ND	5.0	96	96	0.0	98	105	6.9	70 - 130	30	
Benzene	ND	1.0	97	92	5.3	95	97	2.1	70 - 130	30	
Bromobenzene	ND	5.0	93	88	5.5	90	91	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	93	90	3.3	94	94	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	101	98	3.0	98	99	1.0	70 - 130	30	
Bromoform	ND	5.0	101	99	2.0	90	95	5.4	70 - 130	30	
Bromomethane	ND	5.0	98	91	7.4	86	86	0.0	70 - 130	30	
Carbon Disulfide	ND	5.0	99	94	5.2	88	88	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	108	104	3.8	98	100	2.0	70 - 130	30	
Chlorobenzene	ND	5.0	92	87	5.6	90	90	0.0	70 - 130	30	
Chloroethane	ND	5.0	101	94	7.2	87	88	1.1	70 - 130	30	
Chloroform	ND	5.0	96	93	3.2	94	95	1.1	70 - 130	30	
Chloromethane	ND	5.0	93	91	2.2	90	89	1.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	93	5.2	96	99	3.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	105	100	4.9	97	100	3.0	70 - 130	30	
Dibromochloromethane	ND	3.0	101	99	2.0	94	98	4.2	70 - 130	30	
Dibromomethane	ND	5.0	94	90	4.3	92	95	3.2	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	115	109	5.4	109	108	0.9	70 - 130	30	
Ethylbenzene	ND	1.0	94	90	4.3	91	92	1.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	101	95	6.1	89	91	2.2	70 - 130	30	
Isopropylbenzene	ND	1.0	95	89	6.5	92	92	0.0	70 - 130	30	
m&p-Xylene	ND	2.0	93	89	4.4	89	89	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	83	83	0.0	82	89	8.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	92	89	3.3	90	92	2.2	70 - 130	30	
Methylene chloride	ND	5.0	75	71	5.5	70	71	1.4	70 - 130	30	
Naphthalene	ND	5.0	89	88	1.1	89	94	5.5	70 - 130	30	
n-Butylbenzene	ND	1.0	98	92	6.3	87	88	1.1	70 - 130	30	
n-Propylbenzene	ND	1.0	94	90	4.3	90	90	0.0	70 - 130	30	
o-Xylene	ND	2.0	97	92	5.3	96	95	1.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	98	93	5.2	91	92	1.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	99	94	5.2	94	94	0.0	70 - 130	30	
Styrene	ND	5.0	95	90	5.4	92	93	1.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	95	90	5.4	93	93	0.0	70 - 130	30	
Tetrachloroethene	ND	5.0	101	96	5.1	96	97	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB62410

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrahydrofuran (THF)	ND	5.0	98	98	0.0	101	109	7.6	70 - 130	30
Toluene	ND	1.0	97	93	4.2	94	95	1.1	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	85	82	3.6	80	80	0.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	100	97	3.0	93	97	4.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	115	114	0.9	98	105	6.9	70 - 130	30
Trichloroethene	ND	5.0	96	92	4.3	93	94	1.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	93	87	6.7	82	82	0.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	96	92	4.3	88	88	0.0	70 - 130	30
Vinyl chloride	ND	5.0	97	92	5.3	91	89	2.2	70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	100	101	1.0	100	100	0.0	70 - 130	30
% Bromofluorobenzene	101	%	104	104	0.0	106	106	0.0	70 - 130	30
% Dibromofluoromethane	101	%	103	104	1.0	102	100	2.0	70 - 130	30
% Toluene-d8	102	%	101	101	0.0	101	102	1.0	70 - 130	30

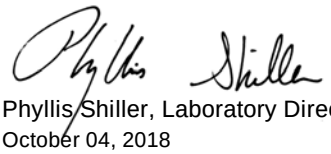
Comment:

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

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD 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 04, 2018

Thursday, October 04, 2018

Criteria: CT: GBM, I/C, RC

State: CT

Sample Criteria Exceedances Report

GCB62410 - 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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

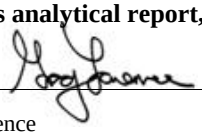
Laboratory Sample ID(s): CB62410 ***Sampling Date(s):*** 10/1/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See 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:** Thursday, October 04, 2018

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

October 04, 2018

SDG I.D.: GCB62410

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.

ETPH Narration

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

Instrument:

AU-XL2 10/01/18-1 Jeff Bucko, Chemist 10/01/18

CB62410

The initial calibration (ETPH925I) 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 449736 (CB61602)

CB62410

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.

SVOA Narration

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

Instrument:

CHEM19 10/01/18-2 Wes Bryon, Chemist 10/01/18

CB62410

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM19/bn_0919):
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 (CHEM19/1001_33-bn_0919):
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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 04, 2018

SDG I.D.: GCB62410

SVOA Narration

QC (Batch Specific):

Batch 449730 (CB61557)

CB62410

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%)

VOA Narration

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

QC Batch 449891 (Samples: CB62410): -----

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

Instrument:

CHEM26 10/01/18-2 Jane Li, Chemist 10/01/18

CB62410

Initial Calibration Verification (CHEM26/VT-0925):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 27% (20%), Chloroethane 27% (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 (CHEM26/1001_06-VT-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: Acetone 33%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 449891 (CB61701)

CB62410

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(61%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(58%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 2.4C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [x] No [ ]
Coolant: IPK [ ] ICE [x] No [ ]
Temp 2 4 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:
[x] Email: Lwilley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middletown CT 06457

Project: Riverside MRP
Report to: Liam Willey
Invoice to: Tighe + Bond

Project P.O.: 14-0755-4413

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 10/1/19

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	PART	EPH	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
62410	SB-63 (35-37 FT)	S	10/1/19	10:50	X	X	X	3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	10/1/19	1810

Comments, Special Requirements or Regulations:
DAS pricing
quote # 110857BA

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
[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

PHOENIX
Environmental Laboratories, Inc.

Tuesday, October 23, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB72216 - CB72218

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

October 23, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/15/18	12:45
Location Code:	TIGHE-DAS	Received by:	LB	10/16/18	12:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB72216
Phoenix ID: CB72216

Project ID: ROCKVILLE MGP
Client ID: SB-66 (17-19 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	88		%		10/17/18	AK/IG	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/17/18	SJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/17/18	BA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	10/18/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	10/18/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	10/18/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	10/18/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,1-Dichloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,1-Dichloroethene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,1-Dichloropropene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2-Dibromoethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2-Dichloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,2-Dichloropropane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-66 (17-19 FT)

Phoenix I.D.: CB72216

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,3-Dichloropropane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
2,2-Dichloropropane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
2-Chlorotoluene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	10/18/18	JLI	SW8260C
2-Isopropyltoluene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
4-Chlorotoluene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	10/18/18	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	10/18/18	JLI	SW8260C
Acrylonitrile	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Benzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Bromobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Bromochloromethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Bromodichloromethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Bromoform	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Bromomethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Carbon Disulfide	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Carbon tetrachloride	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Chlorobenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Chloroethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Chloroform	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Chloromethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	10/18/18	JLI	SW8260C
Dibromomethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Ethylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Hexachlorobutadiene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Isopropylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
m&p-Xylene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	10/18/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	10/18/18	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	10/18/18	JLI	SW8260C
Naphthalene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
n-Butylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
n-Propylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
o-Xylene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
p-Isopropyltoluene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
sec-Butylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Styrene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
tert-Butylbenzene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Tetrachloroethene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	10/18/18	JLI	SW8260C
Toluene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Total Xylenes	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-66 (17-19 FT)

Phoenix I.D.: CB72216

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	10/18/18	JLI	SW8260C
Trichloroethene	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	10/18/18	JLI	SW8260C
Vinyl chloride	ND	5.4	ug/Kg	1	10/18/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	10/18/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/18/18	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	10/18/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/18/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Acenaphthene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Anthracene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Chrysene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Fluoranthene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Fluorene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Naphthalene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Phenanthrene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
Pyrene	ND	260	ug/Kg	1	10/18/18	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	37		%	1	10/18/18	AW	30 - 130 %
% Nitrobenzene-d5	35		%	1	10/18/18	AW	30 - 130 %
% Terphenyl-d14	41		%	1	10/18/18	AW	30 - 130 %
Field Extraction	Completed				10/15/18		SW5035A

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

Comments:

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 23, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

October 23, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/15/18	13:00
Location Code:	TIGHE-DAS	Received by:	LB	10/16/18	12:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB72216
Phoenix ID: CB72217

Project ID: ROCKVILLE MGP
Client ID: SB-66 (27-29 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		10/16/18	ig	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/16/18	MJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/16/18	MJ/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	59	mg/Kg	1	10/17/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	10/17/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	10/17/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	1	10/19/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2,4-Trimethylbenzene	8.2	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-66 (27-29 FT)

Phoenix I.D.: CB72217

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
2-Chlorotoluene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
2-Hexanone	ND	33	ug/Kg	1	10/19/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
4-Chlorotoluene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	10/19/18	JLI	SW8260C
Acetone	ND	330	ug/Kg	1	10/19/18	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Benzene	190	170	ug/Kg	50	10/18/18	JLI	SW8260C
Bromobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Bromodichloromethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	10/19/18	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Ethylbenzene	230	170	ug/Kg	50	10/18/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Isopropylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
m&p-Xylene	22	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	10/19/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	10/19/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	10/19/18	JLI	SW8260C
Naphthalene	570	420	ug/Kg	50	10/18/18	JLI	SW8260C
n-Butylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
n-Propylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
o-Xylene	24	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
sec-Butylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
tert-Butylbenzene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	10/19/18	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Total Xylenes	46.0	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SB-66 (27-29 FT)

Phoenix I.D.: CB72217

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	10/19/18	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	10/19/18	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	10/19/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	10/19/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	10/19/18	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	10/19/18	JLI	70 - 130 %
% Toluene-d8	101		%	1	10/19/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Acenaphthene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Anthracene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Chrysene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Fluoranthene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Fluorene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Naphthalene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Phenanthrene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
Pyrene	ND	280	ug/Kg	1	10/17/18	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	57		%	1	10/17/18	AW	30 - 130 %
% Nitrobenzene-d5	53		%	1	10/17/18	AW	30 - 130 %
% Terphenyl-d14	68		%	1	10/17/18	AW	30 - 130 %
Field Extraction	Completed				10/15/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-66 (27-29 FT)

Phoenix I.D.: CB72217

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:

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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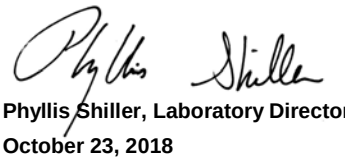

Phyllis Shiller, Laboratory Director
October 23, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

October 23, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		10/15/18	10:45
Location Code:	TIGHE-DAS	Received by:	LB	10/16/18	12:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB72216
Phoenix ID: CB72218

Project ID: ROCKVILLE MGP
Client ID: SB-67 (23-25 FT)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		10/16/18	ig	SW846-%Solid
Soil Extraction SVOA PAH	Completed				10/16/18	MJ/CKV	SW3545A
Extraction of CT ETPH	Completed				10/17/18	BA/VCK	SW3545A
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	10/18/18	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	10/18/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	10/18/18	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.4	ug/Kg	1	10/17/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,1-Dichloropropene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	10/17/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-67 (23-25 FT)

Phoenix I.D.: CB72218

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,3-Dichloropropane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
2,2-Dichloropropane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
2-Chlorotoluene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
2-Hexanone	ND	37	ug/Kg	1	10/17/18	JLI	SW8260C
2-Isopropyltoluene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
4-Chlorotoluene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	37	ug/Kg	1	10/17/18	JLI	SW8260C
Acetone	ND	370	ug/Kg	1	10/17/18	JLI	SW8260C
Acrylonitrile	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Benzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Bromobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Bromochloromethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Bromodichloromethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Bromoform	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Bromomethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Carbon Disulfide	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Carbon tetrachloride	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Chlorobenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Chloroethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Chloroform	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Chloromethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Dibromochloromethane	ND	4.4	ug/Kg	1	10/17/18	JLI	SW8260C
Dibromomethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Ethylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Hexachlorobutadiene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Isopropylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
m&p-Xylene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	44	ug/Kg	1	10/17/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	1	10/17/18	JLI	SW8260C
Methylene chloride	ND	15	ug/Kg	1	10/17/18	JLI	SW8260C
Naphthalene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
n-Butylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
n-Propylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
o-Xylene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
p-Isopropyltoluene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
sec-Butylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Styrene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
tert-Butylbenzene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Tetrachloroethene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	15	ug/Kg	1	10/17/18	JLI	SW8260C
Toluene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Total Xylenes	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SB-67 (23-25 FT)

Phoenix I.D.: CB72218

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	1	10/17/18	JLI	SW8260C
Trichloroethene	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	15	ug/Kg	1	10/17/18	JLI	SW8260C
Vinyl chloride	ND	7.3	ug/Kg	1	10/17/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	10/17/18	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	10/17/18	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	10/17/18	JLI	70 - 130 %
% Toluene-d8	100		%	1	10/17/18	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Acenaphthene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Anthracene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Chrysene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Fluoranthene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Fluorene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Phenanthrene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
Pyrene	ND	250	ug/Kg	1	10/17/18	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	1	10/17/18	AW	30 - 130 %
% Nitrobenzene-d5	53		%	1	10/17/18	AW	30 - 130 %
% Terphenyl-d14	70		%	1	10/17/18	AW	30 - 130 %
Field Extraction	Completed				10/15/18		SW5035A

Project ID: ROCKVILLE MGP
Client ID: SB-67 (23-25 FT)

Phoenix I.D.: CB72218

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:

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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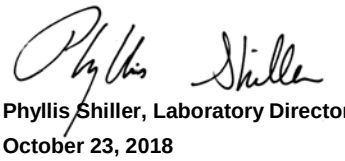

Phyllis Shiller, Laboratory Director
October 23, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

QA/QC Report

October 23, 2018

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 452026 (mg/Kg), QC Sample No: CB71848 (CB72217)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	83	72	14.2	97	101	4.0	60 - 120	30	
% n-Pentacosane	66	%	70	54	25.8	68	72	5.7	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 452158 (ug/kg), QC Sample No: CB72189 (CB72218)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	101	105	3.9	103	107	3.8	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	103	103	0.0	109	109	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	102	102	0.0	115	122	5.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	100	102	2.0	107	101	5.8	70 - 130	30	
1,1-Dichloroethane	ND	5.0	97	99	2.0	102	104	1.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	103	104	1.0	112	113	0.9	70 - 130	30	
1,1-Dichloropropene	ND	5.0	102	102	0.0	118	106	10.7	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	98	98	0.0	101	99	2.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	96	97	1.0	108	115	6.3	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	98	96	2.1	103	100	3.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	95	95	0.0	102	106	3.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	106	107	0.9	101	112	10.3	70 - 130	30	
1,2-Dibromoethane	ND	5.0	99	102	3.0	97	100	3.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	94	95	1.1	85	92	7.9	70 - 130	30	
1,2-Dichloroethane	ND	5.0	101	102	1.0	113	103	9.3	70 - 130	30	
1,2-Dichloropropane	ND	5.0	99	97	2.0	112	102	9.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	95	96	1.0	105	111	5.6	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	95	95	0.0	89	96	7.6	70 - 130	30	
1,3-Dichloropropane	ND	5.0	97	99	2.0	99	102	3.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	93	93	0.0	86	93	7.8	70 - 130	30	
2,2-Dichloropropane	ND	5.0	107	105	1.9	106	108	1.9	70 - 130	30	
2-Chlorotoluene	ND	5.0	96	96	0.0	105	113	7.3	70 - 130	30	
2-Hexanone	ND	25	89	90	1.1	72	69	4.3	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	101	101	0.0	103	110	6.6	70 - 130	30	
4-Chlorotoluene	ND	5.0	94	94	0.0	98	105	6.9	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	99	1.0	93	80	15.0	70 - 130	30	
Acetone	ND	10	111	118	6.1	77	80	3.8	70 - 130	30	
Acrylonitrile	ND	5.0	101	100	1.0	92	99	7.3	70 - 130	30	
Benzene	ND	1.0	98	99	1.0	114	103	10.1	70 - 130	30	
Bromobenzene	ND	5.0	95	97	2.1	103	110	6.6	70 - 130	30	
Bromochloromethane	ND	5.0	103	106	2.9	105	108	2.8	70 - 130	30	
Bromodichloromethane	ND	5.0	105	97	7.9	107	101	5.8	70 - 130	30	
Bromoform	ND	5.0	110	112	1.8	88	99	11.8	70 - 130	30	
Bromomethane	ND	5.0	100	101	1.0	107	107	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	5.0	108	110	1.8	110	112	1.8	70 - 130	30
Carbon tetrachloride	ND	5.0	107	108	0.9	107	109	1.9	70 - 130	30
Chlorobenzene	ND	5.0	95	97	2.1	95	97	2.1	70 - 130	30
Chloroethane	ND	5.0	103	104	1.0	114	114	0.0	70 - 130	30
Chloroform	ND	5.0	100	101	1.0	105	105	0.0	70 - 130	30
Chloromethane	ND	5.0	82	84	2.4	95	100	5.1	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	100	102	2.0	104	104	0.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	104	105	1.0	102	96	6.1	70 - 130	30
Dibromochloromethane	ND	3.0	110	114	3.6	100	107	6.8	70 - 130	30
Dibromomethane	ND	5.0	102	101	1.0	109	102	6.6	70 - 130	30
Dichlorodifluoromethane	ND	5.0	97	97	0.0	103	108	4.7	70 - 130	30
Ethylbenzene	ND	1.0	96	97	1.0	100	102	2.0	70 - 130	30
Hexachlorobutadiene	ND	5.0	102	101	1.0	107	105	1.9	70 - 130	30
Isopropylbenzene	ND	1.0	96	97	1.0	116	122	5.0	70 - 130	30
m&p-Xylene	ND	2.0	96	97	1.0	98	99	1.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	90	91	1.1	80	82	2.5	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	109	112	2.7	111	113	1.8	70 - 130	30
Methylene chloride	ND	5.0	91	93	2.2	97	97	0.0	70 - 130	30
Naphthalene	ND	5.0	100	102	2.0	102	103	1.0	70 - 130	30
n-Butylbenzene	ND	1.0	98	95	3.1	89	96	7.6	70 - 130	30
n-Propylbenzene	ND	1.0	94	95	1.1	109	115	5.4	70 - 130	30
o-Xylene	ND	2.0	100	101	1.0	101	104	2.9	70 - 130	30
p-Isopropyltoluene	ND	1.0	97	97	0.0	98	105	6.9	70 - 130	30
sec-Butylbenzene	ND	1.0	100	100	0.0	103	111	7.5	70 - 130	30
Styrene	ND	5.0	99	100	1.0	91	94	3.2	70 - 130	30
tert-Butylbenzene	ND	1.0	96	97	1.0	107	113	5.5	70 - 130	30
Tetrachloroethene	ND	5.0	102	101	1.0	112	104	7.4	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	102	102	0.0	96	98	2.1	70 - 130	30
Toluene	ND	1.0	98	98	0.0	110	101	8.5	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	103	103	0.0	109	109	0.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	103	104	1.0	97	92	5.3	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	113	115	1.8	97	108	10.7	70 - 130	30
Trichloroethene	ND	5.0	100	101	1.0	100	102	2.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	96	96	0.0	103	104	1.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	106	106	0.0	113	114	0.9	70 - 130	30
Vinyl chloride	ND	5.0	94	95	1.1	104	105	1.0	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	101	0.0	98	100	2.0	70 - 130	30
% Bromofluorobenzene	98	%	99	101	2.0	93	94	1.1	70 - 130	30
% Dibromofluoromethane	105	%	104	105	1.0	101	101	0.0	70 - 130	30
% Toluene-d8	100	%	101	99	2.0	110	99	10.5	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 452554 (ug/kg), QC Sample No: CB72216 (CB72216)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	102	103	1.0	103	101	2.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	106	105	0.9	102	100	2.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	102	106	3.8	103	102	1.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	99	3.1	98	97	1.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	105	104	1.0	102	101	1.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	106	104	1.9	107	105	1.9	70 - 130	30
1,1-Dichloropropene	ND	5.0	104	104	0.0	106	101	4.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	102	109	6.6	93	85	9.0	70 - 130	30

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	5.0	104	102	1.9	101	99	2.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	102	108	5.7	91	83	9.2	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	104	103	1.0	103	97	6.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	106	113	6.4	96	95	1.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	98	104	5.9	101	100	1.0	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	100	100	0.0	98	96	2.1	70 - 130	30
1,2-Dichloroethane	ND	5.0	100	101	1.0	95	95	0.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	100	100	0.0	101	99	2.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	105	102	2.9	105	98	6.9	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	100	101	1.0	99	95	4.1	70 - 130	30
1,3-Dichloropropane	ND	5.0	99	102	3.0	98	98	0.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	99	99	0.0	97	94	3.1	70 - 130	30
2,2-Dichloropropane	ND	5.0	112	114	1.8	108	102	5.7	70 - 130	30
2-Chlorotoluene	ND	5.0	102	102	0.0	103	99	4.0	70 - 130	30
2-Hexanone	ND	25	98	104	5.9	92	91	1.1	70 - 130	30
2-Isopropyltoluene	ND	5.0	104	104	0.0	104	96	8.0	70 - 130	30
4-Chlorotoluene	ND	5.0	100	100	0.0	100	96	4.1	70 - 130	30
4-Methyl-2-pentanone	ND	25	101	107	5.8	95	94	1.1	70 - 130	30
Acetone	ND	10	78	80	2.5	71	72	1.4	70 - 130	30
Acrylonitrile	ND	5.0	99	103	4.0	93	95	2.1	70 - 130	30
Benzene	ND	1.0	100	100	0.0	104	101	2.9	70 - 130	30
Bromobenzene	ND	5.0	98	101	3.0	101	97	4.0	70 - 130	30
Bromochloromethane	ND	5.0	104	102	1.9	100	99	1.0	70 - 130	30
Bromodichloromethane	ND	5.0	103	103	0.0	101	100	1.0	70 - 130	30
Bromoform	ND	5.0	106	112	5.5	103	103	0.0	70 - 130	30
Bromomethane	ND	5.0	91	80	12.9	95	92	3.2	70 - 130	30
Carbon Disulfide	ND	5.0	114	109	4.5	111	110	0.9	70 - 130	30
Carbon tetrachloride	ND	5.0	112	111	0.9	105	103	1.9	70 - 130	30
Chlorobenzene	ND	5.0	103	100	3.0	102	99	3.0	70 - 130	30
Chloroethane	ND	5.0	98	98	0.0	96	94	2.1	70 - 130	30
Chloroform	ND	5.0	102	102	0.0	99	97	2.0	70 - 130	30
Chloromethane	ND	5.0	93	92	1.1	82	84	2.4	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	103	104	1.0	106	103	2.9	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	103	104	1.0	102	100	2.0	70 - 130	30
Dibromochloromethane	ND	3.0	108	112	3.6	106	105	0.9	70 - 130	30
Dibromomethane	ND	5.0	98	99	1.0	97	97	0.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	100	98	2.0	94	89	5.5	70 - 130	30
Ethylbenzene	ND	1.0	104	102	1.9	104	100	3.9	70 - 130	30
Hexachlorobutadiene	ND	5.0	104	109	4.7	94	76	21.2	70 - 130	30
Isopropylbenzene	ND	1.0	106	106	0.0	108	103	4.7	70 - 130	30
m&p-Xylene	ND	2.0	106	102	3.8	104	100	3.9	70 - 130	30
Methyl ethyl ketone	ND	5.0	94	97	3.1	81	81	0.0	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	99	101	2.0	93	94	1.1	70 - 130	30
Methylene chloride	ND	5.0	95	95	0.0	98	99	1.0	70 - 130	30
Naphthalene	ND	5.0	107	117	8.9	98	94	4.2	70 - 130	30
n-Butylbenzene	ND	1.0	105	105	0.0	101	89	12.6	70 - 130	30
n-Propylbenzene	ND	1.0	104	103	1.0	104	97	7.0	70 - 130	30
o-Xylene	ND	2.0	105	106	0.9	108	104	3.8	70 - 130	30
p-Isopropyltoluene	ND	1.0	106	105	0.9	104	94	10.1	70 - 130	30
sec-Butylbenzene	ND	1.0	110	109	0.9	109	99	9.6	70 - 130	30
Styrene	ND	5.0	106	105	0.9	106	104	1.9	70 - 130	30
tert-Butylbenzene	ND	1.0	105	104	1.0	107	98	8.8	70 - 130	30
Tetrachloroethene	ND	5.0	99	100	1.0	106	100	5.8	70 - 130	30

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrahydrofuran (THF)	ND	5.0	97	103	6.0	85	86	1.2	70 - 130	30	
Toluene	ND	1.0	101	101	0.0	103	100	3.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	103	103	0.0	102	102	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	101	103	2.0	96	95	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	112	115	2.6	105	104	1.0	70 - 130	30	
Trichloroethene	ND	5.0	103	103	0.0	103	100	3.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	101	98	3.0	98	95	3.1	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	103	101	2.0	102	96	6.1	70 - 130	30	
Vinyl chloride	ND	5.0	103	100	3.0	101	98	3.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	100	100	0.0	99	100	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	99	98	1.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	95	%	99	99	0.0	102	103	1.0	70 - 130	30	
% Toluene-d8	98	%	100	100	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 452018 (ug/kg), QC Sample No: CB72472 (CB72217, CB72218)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	68	53	24.8	64	65	1.6	30 - 130	30	
Acenaphthene	ND	230	71	56	23.6	65	64	1.6	30 - 130	30	
Acenaphthylene	ND	230	67	53	23.3	62	62	0.0	30 - 130	30	
Anthracene	ND	230	80	60	28.6	68	69	1.5	30 - 130	30	
Benz(a)anthracene	ND	230	80	61	27.0	67	67	0.0	30 - 130	30	
Benzo(a)pyrene	ND	230	81	61	28.2	68	68	0.0	30 - 130	30	
Benzo(b)fluoranthene	ND	230	84	62	30.1	69	72	4.3	30 - 130	30	
Benzo(ghi)perylene	ND	230	77	57	29.9	62	56	10.2	30 - 130	30	
Benzo(k)fluoranthene	ND	230	80	60	28.6	66	65	1.5	30 - 130	30	
Chrysene	ND	230	78	60	26.1	66	67	1.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	230	86	64	29.3	71	64	10.4	30 - 130	30	
Fluoranthene	ND	230	83	65	24.3	70	72	2.8	30 - 130	30	
Fluorene	ND	230	75	58	25.6	67	68	1.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	85	61	32.9	66	63	4.7	30 - 130	30	r
Naphthalene	ND	230	62	49	23.4	59	60	1.7	30 - 130	30	
Phenanthrene	ND	230	76	58	26.9	65	64	1.6	30 - 130	30	
Pyrene	ND	230	83	65	24.3	70	73	4.2	30 - 130	30	
% 2-Fluorobiphenyl	41	%	67	54	21.5	61	59	3.3	30 - 130	30	
% Nitrobenzene-d5	36	%	63	48	27.0	64	67	4.6	30 - 130	30	
% Terphenyl-d14	48	%	75	59	23.9	63	66	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 452170 (ug/kg), QC Sample No: CB73486 (CB72216)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	68			63	60	4.9	30 - 130	30	
Acenaphthene	ND	230	65			59	61	3.3	30 - 130	30	
Acenaphthylene	ND	230	63			57	58	1.7	30 - 130	30	
Anthracene	ND	230	70			65	69	6.0	30 - 130	30	
Benz(a)anthracene	ND	230	70			63	67	6.2	30 - 130	30	
Benzo(a)pyrene	ND	230	70			62	66	6.3	30 - 130	30	
Benzo(b)fluoranthene	ND	230	71			64	66	3.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	65			58	62	6.7	30 - 130	30	
Benzo(k)fluoranthene	ND	230	68			60	65	8.0	30 - 130	30	
Chrysene	ND	230	68			61	66	7.9	30 - 130	30	

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dibenz(a,h)anthracene	ND	230	73			65	70	7.4	30 - 130	30	
Fluoranthene	ND	230	76			68	72	5.7	30 - 130	30	
Fluorene	ND	230	69			63	65	3.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	69			62	65	4.7	30 - 130	30	
Naphthalene	ND	230	61			56	54	3.6	30 - 130	30	
Phenanthrene	ND	230	66			61	64	4.8	30 - 130	30	
Pyrene	ND	230	76			69	73	5.6	30 - 130	30	
% 2-Fluorobiphenyl	55	%	62			57	57	0.0	30 - 130	30	
% Nitrobenzene-d5	51	%	61			60	56	6.9	30 - 130	30	
% Terphenyl-d14	61	%	67			62	66	6.3	30 - 130	30	

Comment:

This batch consists of a blank, LCS, MS and MSD.

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 452210 (mg/Kg), QC Sample No: CB73532 (CB72216, CB72218)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	71	66	7.3	96	102	6.1	60 - 120	30	
% n-Pentacosane	57	%	60	56	6.9	62	67	7.8	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 452515 (ug/kg), QC Sample No: CB73701 (CB72217 (50X))

Volatiles - Soil

Benzene	ND	1.0	105	103	1.9	117	116	0.9	70 - 130	30	
Ethylbenzene	ND	1.0	108	107	0.9	122	120	1.7	70 - 130	30	
Naphthalene	ND	5.0	108	112	3.6	124	120	3.3	70 - 130	30	

Comment:

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

QA/QC Batch 452609 (ug/kg), QC Sample No: CB74408 (CB72217)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	114	115	0.9	127	131	3.1	70 - 130	30	m
1,1,1-Trichloroethane	ND	5.0	110	113	2.7	122	120	1.7	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	107	114	6.3	136	139	2.2	70 - 130	30	m
1,1,2-Trichloroethane	ND	5.0	104	104	0.0	121	125	3.3	70 - 130	30	
1,1-Dichloroethane	ND	5.0	112	113	0.9	114	113	0.9	70 - 130	30	
1,1-Dichloroethene	ND	5.0	117	120	2.5	95	99	4.1	70 - 130	30	
1,1-Dichloropropene	ND	5.0	111	116	4.4	125	122	2.4	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	108	110	1.8	122	123	0.8	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	98	101	3.0	127	127	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	111	113	1.8	123	125	1.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	109	111	1.8	124	123	0.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	110	120	8.7	140	140	0.0	70 - 130	30	m
1,2-Dibromoethane	ND	5.0	107	108	0.9	124	128	3.2	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	107	109	1.9	125	126	0.8	70 - 130	30	
1,2-Dichloroethane	ND	5.0	104	106	1.9	118	119	0.8	70 - 130	30	
1,2-Dichloropropane	ND	5.0	105	108	2.8	121	123	1.6	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	110	112	1.8	124	122	1.6	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	110	111	0.9	125	125	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	104	106	1.9	122	126	3.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	109	111	1.8	123	124	0.8	70 - 130	30	
2,2-Dichloropropane	ND	5.0	112	115	2.6	116	115	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Chlorotoluene	ND	5.0	109	110	0.9	122	122	0.0	70 - 130	30	
2-Hexanone	ND	25	91	99	8.4	118	124	5.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	110	113	2.7	127	126	0.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	109	112	2.7	121	123	1.6	70 - 130	30	
4-Methyl-2-pentanone	ND	25	100	106	5.8	121	126	4.0	70 - 130	30	
Acetone	ND	10	79	85	7.3	79	72	9.3	70 - 130	30	
Acrylonitrile	ND	5.0	98	105	6.9	113	115	1.8	70 - 130	30	
Bromobenzene	ND	5.0	105	107	1.9	121	121	0.0	70 - 130	30	
Bromochloromethane	ND	5.0	111	111	0.0	122	126	3.2	70 - 130	30	
Bromodichloromethane	ND	5.0	111	114	2.7	123	126	2.4	70 - 130	30	
Bromoform	ND	5.0	117	119	1.7	131	138	5.2	70 - 130	30	m
Bromomethane	ND	5.0	99	98	1.0	68	77	12.4	70 - 130	30	m
Carbon Disulfide	ND	5.0	120	123	2.5	100	82	19.8	70 - 130	30	
Carbon tetrachloride	ND	5.0	111	115	3.5	120	117	2.5	70 - 130	30	
Chlorobenzene	ND	5.0	111	111	0.0	121	124	2.4	70 - 130	30	
Chloroethane	ND	5.0	91	86	5.6	69	77	11.0	70 - 130	30	m
Chloroform	ND	5.0	106	108	1.9	118	111	6.1	70 - 130	30	
Chloromethane	ND	5.0	96	97	1.0	109	105	3.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	118	117	0.9	128	131	2.3	70 - 130	30	m
cis-1,3-Dichloropropene	ND	5.0	109	110	0.9	119	122	2.5	70 - 130	30	
Dibromochloromethane	ND	3.0	119	121	1.7	133	140	5.1	70 - 130	30	m
Dibromomethane	ND	5.0	105	107	1.9	120	123	2.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	100	105	4.9	110	107	2.8	70 - 130	30	
Hexachlorobutadiene	ND	5.0	110	117	6.2	134	132	1.5	70 - 130	30	m
Isopropylbenzene	ND	1.0	111	114	2.7	126	124	1.6	70 - 130	30	
m&p-Xylene	ND	2.0	113	115	1.8	124	125	0.8	70 - 130	30	
Methyl ethyl ketone	ND	5.0	87	99	12.9	108	116	7.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	102	104	1.9	110	112	1.8	70 - 130	30	
Methylene chloride	ND	5.0	104	104	0.0	106	102	3.8	70 - 130	30	
n-Butylbenzene	ND	1.0	113	117	3.5	130	127	2.3	70 - 130	30	
n-Propylbenzene	ND	1.0	111	114	2.7	126	122	3.2	70 - 130	30	
o-Xylene	ND	2.0	111	112	0.9	125	128	2.4	70 - 130	30	
p-Isopropyltoluene	ND	1.0	111	115	3.5	128	126	1.6	70 - 130	30	
sec-Butylbenzene	ND	1.0	115	121	5.1	134	132	1.5	70 - 130	30	m
Styrene	ND	5.0	113	113	0.0	127	131	3.1	70 - 130	30	m
tert-Butylbenzene	ND	1.0	108	112	3.6	126	124	1.6	70 - 130	30	
Tetrachloroethene	ND	5.0	111	114	2.7	122	120	1.7	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	96	103	7.0	118	121	2.5	70 - 130	30	
Toluene	ND	1.0	109	112	2.7	122	122	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	113	114	0.9	115	110	4.4	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	104	107	2.8	116	120	3.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	118	126	6.6	132	134	1.5	70 - 130	30	m
Trichloroethene	ND	5.0	111	114	2.7	121	119	1.7	70 - 130	30	
Trichlorofluoromethane	ND	5.0	109	110	0.9	60	91	41.1	70 - 130	30	m,r
Trichlorotrifluoroethane	ND	5.0	113	119	5.2	104	88	16.7	70 - 130	30	
Vinyl chloride	ND	5.0	110	113	2.7	117	114	2.6	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	101	1.0	101	100	1.0	70 - 130	30	
% Bromofluorobenzene	95	%	101	100	1.0	101	104	2.9	70 - 130	30	
% Dibromofluoromethane	100	%	100	102	2.0	95	95	0.0	70 - 130	30	
% Toluene-d8	101	%	99	99	0.0	99	99	0.0	70 - 130	30	

Comment:

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

QA/QC Data

SDG I.D.: GCB72216

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD 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 23, 2018

Tuesday, October 23, 2018

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedances Report

GCB72216 - 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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

Laboratory Sample ID(s): CB72216-CB72218 ***Sampling Date(s):*** 10/15/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the 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: Phyllis Shiller **Position:** Laboratory Director

Printed Name: Phyllis Shiller **Date:** Tuesday, October 23, 2018

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

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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

October 23, 2018

SDG I.D.: GCB72216

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.

ETPH Narration

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

Instrument:

AU-FID22 10/16/18-1 Jeff Bucko, Chemist 10/16/18

CB72217

The initial calibration (ETPH921I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID84 10/17/18-1 Jeff Bucko, Chemist 10/17/18

CB72216, CB72218

The initial calibration (ETPHO12I) 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 452026 (CB71848)

CB72217

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 452210 (CB73532)

CB72216, CB72218

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.

SVOA Narration

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

Instrument:

CHEM28 10/16/18-1 Adam Werner, Chemist 10/16/18

CB72217, CB72218

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM28/28_BN_1009):

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RCP Certification Report

October 23, 2018

SDG I.D.: GCB72216

SVOA Narration

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 (CHEM28/1016_06-28_BN_1009):
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.

CHEM28 10/17/18-2 Adam Werner, Chemist 10/17/18

CB72216

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM28/28_BN_1009):
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 (CHEM28/1017_27-28_BN_1009):
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 452018 (CB72472)

CB72217, CB72218

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: Indeno(1,2,3-cd)pyrene(32.9%)
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 452170 (CB73486)

CB72216

All LCS recoveries were within 30 - 130 with the following exceptions: None.
This batch consists of a blank, LCS, MS and MSD.
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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RCP Certification Report

October 23, 2018

SDG I.D.: GCB72216

VOA Narration

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

Instrument:

CHEM03 10/18/18-2 Jane Li, Chemist 10/18/18

CB72216

Initial Calibration Verification (CHEM03/VT-L1018):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 23% (20%), Bromomethane 24% (20%), Chloroethane 27% (20%)
The following compounds did not meet recommended response factors: Tetrachloroethene 0.195 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/1018L16-VT-L1018):
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 10/16/18-2 Jane Li, Chemist 10/16/18

CB72218

Initial Calibration Verification (CHEM26/VT-1009):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: trans-1,4-dichloro-2-butene 21% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM26/1016_32-VT-1009):
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.

CHEM31 10/18/18-1 Jane Li, Chemist 10/18/18

CB72217

Initial Calibration Verification (CHEM31/VT-L1017):
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 (CHEM31/1018_02-VT-L1017):
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.

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RCP Certification Report

October 23, 2018

SDG I.D.: GCB72216

VOA Narration

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

CHEM31 10/18/18-2 Jane Li, Chemist 10/18/18

CB72217

Initial Calibration Verification (CHEM31/VT-L1017):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%), Acetone 21% (20%), Bromoform 24% (20%)
The following compounds did not meet recommended response factors: Acetone 0.092 (0.1), Bromodichloromethane 0.186 (0.2), Bromoform 0.073 (0.1), Tetrachloroethene 0.143 (0.2), Trichloroethene 0.192 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM31/1018_32-VT-L1017):
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 0.046 (0.05), Bromoform 0.072 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 452158 (CB72189)

CB72218

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%.

Batch 452515 (CB73701)

CB72217

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%.

Batch 452609 (CB74408)

CB72217

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

QC (Site Specific):

Batch 452554 (CB72216)

CB72216

All LCS recoveries were within 70 - 130 with the following exceptions: None.

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RCP Certification Report

October 23, 2018

SDG I.D.: GCB72216

VOA Narration

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

Temperature Narration

The samples in this delivery group were received at 2.6°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

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

CHAIN OF CUSTODY RECORD

Temp. 2.0 °C Pg 1 of 1

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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[■] Email: LEWilley@TighеBond.com

Customer: Tighe & Bond
Address: 213 Court Street
Middletown, CT 06457

Project: 12-5014 Chapel Haven
Report to: Chris Koelle
Invoice to: Tighe & Bond
QUOTE # TI012517BA

Project P.O: 14-0755-44B

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 10/15/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [X] methanol [X] H2O	GL Soil container ( ) oz	GL Soil container (8) 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	25 Gram En-Core	Bacteria Bottle as is
72216	SB-66 (17-19 ft)	S	10/15/2018	12:45				3		1									
72217	SB-66 (27-29 ft)	S	10/15/2018	13:00	X	X	X	3		1									
72218	SB-67 (23-25 ft)	S	10/15/2018	10:45	X	X	X	3		1									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	10/16/18	10:45
[signature]	[signature]	10/16/18	12:10

Comments, Special Requirements or Regulations:

DAS Pricing Quote: TI012517BA

Please hold samples not marked for analysis

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
* 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 22
Page 760 of 1282

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, October 17, 2018 11:31 AM
To: Client Services
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCB72216, ROCKVILLE MGP - COC Acknowledgement
Attachments: Sample Acknowledgement.pdf

Hi there Phoenix:

Please active

CB72216	SB-66 (17-19 FT)

Thank you.

Lynn E. Willey, P.G., 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 <clientservices@phoenixlabs.com>
Sent: Tuesday, October 16, 2018 6:58 PM
To: Lynn E. Willey <LEWilley@tighebond.com>
Subject: Phoenix Labs - GCB72216, ROCKVILLE MGP - COC Acknowledgement

Lynn,

Please email client services only if you have a Price Quote# for this SDG, a Quote# was not listed on the COC.

Purchase Order#:14-0755-44B

GCB72216 Criteria:
SOIL(3): CT GBM (GB Mobility), CT RC (Res. Criteria)

Please email client services only if you require criteria different than what is listed.

Delivery group GCB72216 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CB72216	SB-66 (17-19 FT)
CB72217	SB-66 (27-29 FT)
CB72218	SB-67 (23-25 FT)

The samples in this delivery group were received at 2.6°C. (Note acceptance criteria for relevant matrices 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.

2018

SEDIMENT LABORATORY

ANALYTICAL DATA

PHOENIX
Environmental Laboratories, Inc.

Friday, September 07, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CB20634 - CB20640

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

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

September 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	14:40
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20634

Project ID: ROCKVILLE MGP
Client ID: SED-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	< 0.73	0.73	mg/Kg	1	08/29/18	TH	SW6010C
Barium	30.3	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Beryllium	< 0.29	0.29	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	7.1	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Copper	13.2	7.3	mg/kg	10	08/29/18	CPP	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	7.6	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Lead	43.7	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Antimony	< 3.6	3.6	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	08/29/18	TH	SW6010C
Thallium	< 3.3	3.3	mg/Kg	1	08/29/18	TH	SW6010C
Vanadium	16.0	3.6	mg/Kg	10	08/29/18	CPP	SW6010C
Zinc	57.9	7.3	mg/Kg	10	08/29/18	CPP	SW6010C
Percent Solid	81		%		08/28/18	AK	SW846-%Solid
Soil Extraction for PCB	Completed				08/28/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	91	60	mg/Kg	1	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	08/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-07

Phoenix I.D.: CB20634

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1221	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1232	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1242	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1248	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1254	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1260	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1262	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1268	ND	400	ug/Kg	10	08/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	91		%	10	08/30/18	AW	30 - 150 %
% TCMX	88		%	10	08/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromodichloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-07

Phoenix I.D.: CB20634

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	6.2	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	89		%	1	08/29/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-07

Phoenix I.D.: CB20634

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Acetophenone	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Aniline	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Anthracene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	700	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzidine	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	770	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	1200	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	420	280	ug/Kg	1	08/29/18	KCA	SW8270D
Benzoic acid	ND	810	ug/Kg	1	08/29/18	KCA	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Carbazole	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	790	280	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	1600	280	ug/Kg	1	08/29/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-07

Phoenix I.D.: CB20634

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Isophorone	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	1200	280	ug/Kg	1	08/29/18	KCA	SW8270D
Phenol	ND	280	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	1500	280	ug/Kg	1	08/29/18	KCA	SW8270D
Pyridine	ND	400	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	68		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorophenol	61		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	58		%	1	08/29/18	KCA	30 - 130 %
% Phenol-d5	67		%	1	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	69		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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

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

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

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



Phyllis Shiller, Laboratory Director
September 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

September 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	14:25
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20635

Project ID: ROCKVILLE MGP
Client ID: SED-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	< 0.85	0.85	mg/Kg	1	08/29/18	TH	SW6010C
Barium	23.7	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Beryllium	< 0.34	0.34	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	< 0.43	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	6.61	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Copper	10.0	0.9	mg/kg	1	08/29/18	TH	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	6.37	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Lead	22.2	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Antimony	< 4.3	4.3	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	08/29/18	TH	SW6010C
Thallium	< 3.8	3.8	mg/Kg	1	08/29/18	TH	SW6010C
Vanadium	15.2	0.43	mg/Kg	1	08/29/18	TH	SW6010C
Zinc	45.5	0.9	mg/Kg	1	08/29/18	TH	SW6010C
Percent Solid	76		%		08/28/18	AK	SW846-%Solid
Soil Extraction for PCB	Completed				08/28/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	100	64	mg/Kg	1	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	08/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-08

Phoenix I.D.: CB20635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1221	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1232	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1242	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1248	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1254	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1260	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1262	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1268	ND	430	ug/Kg	10	08/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	81		%	10	08/30/18	AW	30 - 150 %
% TCMX	80		%	10	08/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	30	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	30	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	300	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-08

Phoenix I.D.: CB20635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	3.6	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	36	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	12	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	90		%	1	08/29/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-08

Phoenix I.D.: CB20635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dichlorophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dimethylphenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrophenol	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chloronaphthalene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chlorophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylnaphthalene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitroaniline	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitrophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
3-Nitroaniline	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloroaniline	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitroaniline	ND	700	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitrophenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	330	300	ug/Kg	1	08/29/18	KCA	SW8270D
Acetophenone	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Aniline	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Anthracene	600	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	2400	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzidine	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	2400	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	4100	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	1400	300	ug/Kg	1	08/29/18	KCA	SW8270D
Benzoic acid	ND	870	ug/Kg	1	08/29/18	KCA	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Carbazole	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	2600	300	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenzofuran	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-butylphthalate	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	5200	300	ug/Kg	1	08/29/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-08

Phoenix I.D.: CB20635

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobutadiene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	440	300	ug/Kg	1	08/29/18	KCA	SW8270D
Isophorone	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Nitrobenzene	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachloronitrobenzene	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachlorophenol	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	2800	300	ug/Kg	1	08/29/18	KCA	SW8270D
Phenol	ND	300	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	4300	300	ug/Kg	1	08/29/18	KCA	SW8270D
Pyridine	ND	440	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorophenol	63		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	57		%	1	08/29/18	KCA	30 - 130 %
% Phenol-d5	67		%	1	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	57		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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

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

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

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

Phyllis Shiller, Laboratory Director
September 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

September 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	15:10
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20636

Project ID: ROCKVILLE MGP
Client ID: SED-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.2	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	7.3	4.4	mg/Kg	1	08/29/18	TH	SW6010C
Barium	324	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Beryllium	< 1.8	1.8	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	2.9	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	66.4	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Copper	149	4.4	mg/kg	1	08/29/18	TH	SW6010C
Mercury	0.21	0.17	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	41.6	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Lead	267	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Antimony	< 22	22	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 8.9	8.9	mg/Kg	1	08/29/18	TH	SW6010C
Thallium	< 20	20	mg/Kg	1	08/29/18	TH	SW6010C
Vanadium	109	2.2	mg/Kg	1	08/29/18	TH	SW6010C
Zinc	606	4.4	mg/Kg	1	08/29/18	TH	SW6010C
Percent Solid	15		%		08/28/18	AK	SW846-%Solid
Soil Extraction for PCB	Completed				08/28/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	BA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	630	320	mg/Kg	1	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	51		%	1	08/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-09

Phoenix I.D.: CB20636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1221	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1232	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1242	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1248	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1254	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1260	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1262	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
PCB-1268	ND	430	ug/Kg	2	08/31/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	55		%	2	08/31/18	AW	30 - 150 %
% TCMX	58		%	2	08/31/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	20	ug/Kg	1	08/30/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,1-Dichloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,1-Dichloroethene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,1-Dichloropropene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2-Dibromoethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2-Dichloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,2-Dichloropropane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,3-Dichloropropane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
2,2-Dichloropropane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
2-Chlorotoluene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
2-Hexanone	ND	160	ug/Kg	1	08/30/18	JLI	SW8260C
2-Isopropyltoluene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
4-Chlorotoluene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	160	ug/Kg	1	08/30/18	JLI	SW8260C
Acetone	ND	1600	ug/Kg	1	08/30/18	JLI	SW8260C
Acrylonitrile	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Benzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Bromobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Bromochloromethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Bromodichloromethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Bromoform	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Bromomethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-09

Phoenix I.D.: CB20636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Carbon tetrachloride	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Chlorobenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Chloroethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Chloroform	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Chloromethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Dibromochloromethane	ND	20	ug/Kg	1	08/30/18	JLI	SW8260C
Dibromomethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Dichlorodifluoromethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Ethylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Hexachlorobutadiene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Isopropylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
m&p-Xylene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	200	ug/Kg	1	08/30/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	65	ug/Kg	1	08/30/18	JLI	SW8260C
Methylene chloride	ND	65	ug/Kg	1	08/30/18	JLI	SW8260C
Naphthalene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
n-Butylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
n-Propylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
o-Xylene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
p-Isopropyltoluene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
sec-Butylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Styrene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
tert-Butylbenzene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Tetrachloroethene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	65	ug/Kg	1	08/30/18	JLI	SW8260C
Toluene	240	33	ug/Kg	1	08/30/18	JLI	SW8260C
Total Xylenes	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	65	ug/Kg	1	08/30/18	JLI	SW8260C
Trichloroethene	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Trichlorofluoromethane	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	65	ug/Kg	1	08/30/18	JLI	SW8260C
Vinyl chloride	ND	33	ug/Kg	1	08/30/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	08/30/18	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	08/30/18	JLI	70 - 130 %
% Dibromofluoromethane	90		%	1	08/30/18	JLI	70 - 130 %
% Toluene-d8	102		%	1	08/30/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-09

Phoenix I.D.: CB20636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dichlorophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dimethylphenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrophenol	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chloronaphthalene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chlorophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylnaphthalene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitroaniline	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitrophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
3-Nitroaniline	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloroaniline	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitroaniline	ND	3500	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitrophenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Acetophenone	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Aniline	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Anthracene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzidine	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	1900	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	3700	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Benzoic acid	ND	4400	ug/Kg	1	08/29/18	KCA	SW8270D
Benzyl butyl phthalate	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Carbazole	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	2200	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenzofuran	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Diethyl phthalate	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Dimethylphthalate	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-butylphthalate	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-octylphthalate	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	3600	1500	ug/Kg	1	08/29/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-09

Phoenix I.D.: CB20636

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobutadiene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachloroethane	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Isophorone	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Nitrobenzene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachloronitrobenzene	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachlorophenol	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Phenol	ND	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	3200	1500	ug/Kg	1	08/29/18	KCA	SW8270D
Pyridine	ND	2200	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	68		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	46		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorophenol	51		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	46		%	1	08/29/18	KCA	30 - 130 %
% Phenol-d5	55		%	1	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	39		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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

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

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

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

Phyllis Shiller, Laboratory Director
September 07, 2018
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 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	15:45
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20637

Project ID: ROCKVILLE MGP
Client ID: SED-06A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	22.1	0.7	mg/kg	1	08/29/18	TH	SW6010C
Percent Solid	87		%		08/28/18	AK	SW846-%Solid
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B

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

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 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

September 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	15:50
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20638

Project ID: ROCKVILLE MGP
Client ID: SED-06B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	28.9	1.0	mg/kg	1	08/29/18	TH	SW6010C
Percent Solid	73		%		08/28/18	AK	SW846-%Solid
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B

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

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 07, 2018
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 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	15:55
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20639

Project ID: ROCKVILLE MGP
Client ID: SED-06C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	83.7	0.7	mg/kg	1	08/29/18	EK	SW6010C
Percent Solid	95		%		08/28/18	AK	SW846-%Solid
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B

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

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 07, 2018
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Analysis Report

September 07, 2018

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

Sample Information		Custody Information		Date	Time
Matrix:	SEDIMENT	Collected by:		08/28/18	8:00
Location Code:	TIGHE-DAS	Received by:	CP	08/28/18	16:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	E-0755-44B				

Laboratory Data

SDG ID: GCB20634
Phoenix ID: CB20640

Project ID: ROCKVILLE MGP
Client ID: SED-DUP-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Arsenic	< 0.77	0.77	mg/Kg	1	08/29/18	TH	SW6010C
Barium	27.5	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Beryllium	< 0.31	0.31	mg/Kg	1	08/29/18	TH	SW6010C
Cadmium	< 0.39	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Chromium	7.83	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Copper	9.5	0.8	mg/kg	1	08/29/18	TH	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	08/29/18	RS	SW7471B
Nickel	5.25	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Lead	33.1	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Antimony	< 3.9	3.9	mg/Kg	1	08/29/18	TH	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	08/29/18	TH	SW6010C
Thallium	< 3.5	3.5	mg/Kg	1	08/29/18	TH	SW6010C
Vanadium	16.6	0.39	mg/Kg	1	08/29/18	TH	SW6010C
Zinc	60.8	0.8	mg/Kg	1	08/29/18	TH	SW6010C
Percent Solid	79		%		08/28/18	AK	SW846-%Solid
Soil Extraction for PCB	Completed				08/28/18	BA/V	SW3545A
Soil Extraction for SVOA	Completed				08/28/18	BA/CKV	SW3545A
Extraction of CT ETPH	Completed				08/29/18	AA/VCK	SW3545A
Mercury Digestion	Completed				08/29/18	I/Q	SW7471B
Total Metals Digest	Completed				08/28/18	L/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	79	61	mg/Kg	1	08/30/18	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	08/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	08/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-DUP-1

Phoenix I.D.: CB20640

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Polychlorinated Biphenyls							
PCB-1016	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1221	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1232	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1242	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1248	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1254	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1260	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1262	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
PCB-1268	ND	410	ug/Kg	10	08/30/18	AW	SW8082A
QA/QC Surrogates							
% DCBP	85		%	10	08/30/18	AW	30 - 150 %
% TCMX	85		%	10	08/30/18	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.0	ug/Kg	1	08/29/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloroethene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,1-Dichloropropene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dibromoethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,2-Dichloropropane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,3-Dichloropropane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
2,2-Dichloropropane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
2-Chlorotoluene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
2-Hexanone	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
2-Isopropyltoluene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
4-Chlorotoluene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	08/29/18	JLI	SW8260C
Acetone	ND	330	ug/Kg	1	08/29/18	JLI	SW8260C
Acrylonitrile	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Benzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Bromobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Bromochloromethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Bromodichloromethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Bromoform	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Bromomethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C

Project ID: ROCKVILLE MGP
Client ID: SED-DUP-1

Phoenix I.D.: CB20640

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon Disulfide	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Carbon tetrachloride	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Chlorobenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Chloroform	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Chloromethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromochloromethane	ND	4.0	ug/Kg	1	08/29/18	JLI	SW8260C
Dibromomethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Ethylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Hexachlorobutadiene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Isopropylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
m&p-Xylene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl Ethyl Ketone	ND	40	ug/Kg	1	08/29/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	08/29/18	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	08/29/18	JLI	SW8260C
Naphthalene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
n-Butylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
n-Propylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
o-Xylene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
p-Isopropyltoluene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
sec-Butylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Styrene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
tert-Butylbenzene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrachloroethene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	08/29/18	JLI	SW8260C
Toluene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Total Xylenes	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	08/29/18	JLI	SW8260C
Trichloroethene	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	08/29/18	JLI	SW8260C
Vinyl chloride	ND	6.6	ug/Kg	1	08/29/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	08/29/18	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	08/29/18	JLI	70 - 130 %
% Dibromofluoromethane	112		%	1	08/29/18	JLI	70 - 130 %
% Toluene-d8	88		%	1	08/29/18	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: SED-DUP-1

Phoenix I.D.: CB20640

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrophenol	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitroaniline	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
3-Nitroaniline	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
4,6-Dinitro-2-methylphenol	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitroaniline	ND	660	ug/Kg	1	08/29/18	KCA	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Acetophenone	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Aniline	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Anthracene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benz(a)anthracene	710	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzidine	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(a)pyrene	840	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(b)fluoranthene	1400	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzo(k)fluoranthene	530	290	ug/Kg	1	08/29/18	KCA	SW8270D
Benzoic acid	ND	820	ug/Kg	1	08/29/18	KCA	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Carbazole	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Chrysene	840	290	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-butylphthalate	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Fluoranthene	1700	290	ug/Kg	1	08/29/18	KCA	SW8270D

Project ID: ROCKVILLE MGP
Client ID: SED-DUP-1

Phoenix I.D.: CB20640

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Isophorone	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Naphthalene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachloronitrobenzene	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
Phenanthrene	960	290	ug/Kg	1	08/29/18	KCA	SW8270D
Phenol	ND	290	ug/Kg	1	08/29/18	KCA	SW8270D
Pyrene	1600	290	ug/Kg	1	08/29/18	KCA	SW8270D
Pyridine	ND	410	ug/Kg	1	08/29/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	08/29/18	KCA	30 - 130 %
% 2-Fluorophenol	63		%	1	08/29/18	KCA	30 - 130 %
% Nitrobenzene-d5	59		%	1	08/29/18	KCA	30 - 130 %
% Phenol-d5	68		%	1	08/29/18	KCA	30 - 130 %
% Terphenyl-d14	66		%	1	08/29/18	KCA	30 - 130 %
Field Extraction	Completed				08/28/18		SW5035A

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

Comments:

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

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 07, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Ver 1

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

September 07, 2018

QA/QC Data

SDG I.D.: GCB20634

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 445221 (mg/kg), QC Sample No: CB20630 (CB20634, CB20635, CB20636, CB20637, CB20638, CB20639, CB20640)														
ICP Metals - Soil														
Antimony	BRL	3.0	<3.4	<3.6	NC	96.6			81.1			75 - 125	30	
Arsenic	BRL	0.60	1.84	2.42	NC	102			89.7			75 - 125	30	
Barium	BRL	0.30	92.7	66.1	33.5	105			110			75 - 125	30	r
Beryllium	BRL	0.24	0.52	0.60	NC	106			95.7			75 - 125	30	
Cadmium	BRL	0.30	0.40	0.46	NC	101			93.7			75 - 125	30	
Chromium	BRL	0.30	11.8	14.9	23.2	111			95.7			75 - 125	30	
Copper	BRL	0.60	13.4	14.9	10.6	106			101			75 - 125	30	
Lead	BRL	0.30	1.30	2.30	NC	107			94.3			75 - 125	30	
Nickel	BRL	0.30	8.80	10.0	12.8	104			94.1			75 - 125	30	
Selenium	BRL	1.2	<1.4	<1.4	NC	81.8			98.1			75 - 125	30	
Silver	BRL	0.30	<0.34	<0.36	NC	101			91.3			75 - 125	30	
Thallium	BRL	2.7	<3.1	<3.2	NC	101			92.7			75 - 125	30	
Vanadium	BRL	0.30	49.3	53.0	7.20	117			107			75 - 125	30	
Zinc	BRL	0.60	54.9	58.6	6.50	101			95.7			75 - 125	30	
QA/QC Batch 445240 (mg/kg), QC Sample No: CB20641 (CB20634, CB20635, CB20636, CB20640)														
Mercury - Soil	BRL	0.03	0.25	0.22	12.8	83.1	83.4	0.4	93.7			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.

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

September 07, 2018

QA/QC Data

SDG I.D.: GCB20634

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 445080 (ug/Kg), QC Sample No: CB19799 2X (CB20634, CB20635, CB20636, CB20640)											
Polychlorinated Biphenyls - Sediment											
PCB-1016	ND	33	95	99	4.1	78	85	8.6	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	93	94	1.1	74	81	9.0	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	87	%	105	112	6.5	83	90	8.1	30 - 150	30	
% TCMX (Surrogate Rec)	92	%	111	108	2.7	81	88	8.3	30 - 150	30	
QA/QC Batch 445176 (ug/kg), QC Sample No: CB20488 (CB20634, CB20635, CB20636, CB20640)											
Semivolatiles - Sediment											
1,2,4,5-Tetrachlorobenzene	ND	230	70	66	5.9	64	49	26.5	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	66	61	7.9	63	48	27.0	30 - 130	30	
1,2-Dichlorobenzene	ND	180	61	57	6.8	61	45	30.2	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	82	79	3.7	73	55	28.1	30 - 130	30	
1,3-Dichlorobenzene	ND	230	59	55	7.0	61	44	32.4	30 - 130	30	r
1,4-Dichlorobenzene	ND	230	59	56	5.2	55	45	20.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	81	76	6.4	74	55	29.5	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	78	75	3.9	72	55	26.8	30 - 130	30	
2,4-Dichlorophenol	ND	130	75	71	5.5	65	54	18.5	30 - 130	30	
2,4-Dimethylphenol	ND	230	75	71	5.5	66	51	25.6	30 - 130	30	
2,4-Dinitrophenol	ND	230	11	14	24.0	30	25	18.2	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	83	78	6.2	79	57	32.4	30 - 130	30	r
2,6-Dinitrotoluene	ND	130	84	78	7.4	77	57	29.9	30 - 130	30	
2-Chloronaphthalene	ND	230	73	69	5.6	70	52	29.5	30 - 130	30	
2-Chlorophenol	ND	230	67	64	4.6	55	49	11.5	30 - 130	30	
2-Methylnaphthalene	ND	230	68	65	4.5	64	49	26.5	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	70	67	4.4	67	48	33.0	30 - 130	30	r
2-Nitroaniline	ND	330	111	102	8.5	100	72	32.6	30 - 130	30	r
2-Nitrophenol	ND	230	71	67	5.8	62	52	17.5	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	73	70	4.2	64	51	22.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	76	69	9.7	67	43	43.6	30 - 130	30	r
3-Nitroaniline	ND	330	86	78	9.8	81	59	31.4	30 - 130	30	r
4,6-Dinitro-2-methylphenol	ND	230	24	33	31.6	49	40	20.2	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	78	74	5.3	74	55	29.5	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	80	74	7.8	67	55	19.7	30 - 130	30	
4-Chloroaniline	ND	230	73	64	13.1	64	52	20.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	77	72	6.7	74	54	31.3	30 - 130	30	r
4-Nitroaniline	ND	230	79	74	6.5	72	55	26.8	30 - 130	30	

QA/QC Data

SDG I.D.: GCB20634

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Nitrophenol	ND	230	85	80	6.1	81	59	31.4	30 - 130	30	r
Acenaphthene	ND	230	73	70	4.2	71	54	27.2	30 - 130	30	
Acenaphthylene	ND	130	71	67	5.8	68	51	28.6	30 - 130	30	
Acetophenone	ND	230	66	63	4.7	56	48	15.4	30 - 130	30	
Aniline	ND	330	65	58	11.4	47	39	18.6	30 - 130	30	
Anthracene	ND	230	75	72	4.1	73	55	28.1	30 - 130	30	
Benz(a)anthracene	ND	230	77	72	6.7	72	53	30.4	30 - 130	30	
Benzidine	ND	330	45	40	11.8	13	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	76	71	6.8	71	52	30.9	30 - 130	30	r
Benzo(b)fluoranthene	ND	160	77	72	6.7	72	54	28.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	79	78	1.3	69	53	26.2	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81	74	9.0	75	56	29.0	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	38	22	53.3	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	82	80	2.5	80	61	27.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	72	68	5.7	64	53	18.8	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	63	59	6.6	61	46	28.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	59	55	7.0	58	44	27.5	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	84	81	3.6	79	60	27.3	30 - 130	30	
Carbazole	ND	230	77	73	5.3	71	55	25.4	30 - 130	30	
Chrysene	ND	230	79	75	5.2	74	55	29.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	88	85	3.5	77	58	28.1	30 - 130	30	
Dibenzofuran	ND	230	75	70	6.9	70	52	29.5	30 - 130	30	
Diethyl phthalate	ND	230	77	72	6.7	74	55	29.5	30 - 130	30	
Dimethylphthalate	ND	230	77	73	5.3	72	55	26.8	30 - 130	30	
Di-n-butylphthalate	ND	670	77	74	4.0	73	57	24.6	30 - 130	30	
Di-n-octylphthalate	ND	230	83	78	6.2	74	57	26.0	30 - 130	30	
Fluoranthene	ND	230	75	70	6.9	72	54	28.6	30 - 130	30	
Fluorene	ND	230	76	72	5.4	74	54	31.3	30 - 130	30	r
Hexachlorobenzene	ND	130	78	74	5.3	73	55	28.1	30 - 130	30	
Hexachlorobutadiene	ND	230	66	62	6.3	62	48	25.5	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	59	54	8.8	49	42	15.4	30 - 130	30	
Hexachloroethane	ND	130	60	56	6.9	58	45	25.2	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	80	76	5.1	69	52	28.1	30 - 130	30	
Isophorone	ND	130	67	62	7.8	58	49	16.8	30 - 130	30	
Naphthalene	ND	230	61	59	3.3	61	47	25.9	30 - 130	30	
Nitrobenzene	ND	130	69	65	6.0	69	51	30.0	30 - 130	30	
N-Nitrosodimethylamine	ND	230	60	57	5.1	65	46	34.2	30 - 130	30	r
N-Nitrosodi-n-propylamine	ND	130	73	71	2.8	63	53	17.2	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	78	72	8.0	71	52	30.9	30 - 130	30	r
Pentachloronitrobenzene	ND	230	77	72	6.7	71	52	30.9	30 - 130	30	r
Pentachlorophenol	ND	230	68	66	3.0	86	57	40.6	30 - 130	30	r
Phenanthrene	ND	130	74	71	4.1	71	54	27.2	30 - 130	30	
Phenol	ND	230	71	67	5.8	62	50	21.4	30 - 130	30	
Pyrene	ND	230	76	71	6.8	72	55	26.8	30 - 130	30	
Pyridine	ND	230	44	41	7.1	50	34	38.1	30 - 130	30	r
% 2,4,6-Tribromophenol	71	%	79	77	2.6	77	59	26.5	30 - 130	30	
% 2-Fluorobiphenyl	62	%	65	62	4.7	64	48	28.6	30 - 130	30	
% 2-Fluorophenol	57	%	63	59	6.6	65	46	34.2	30 - 130	30	r
% Nitrobenzene-d5	54	%	62	58	6.7	61	45	30.2	30 - 130	30	
% Phenol-d5	61	%	67	64	4.6	64	49	26.5	30 - 130	30	
% Terphenyl-d14	67	%	63	59	6.6	60	46	26.4	30 - 130	30	

QA/QC Data

SDG I.D.: GCB20634

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 445496 (ug/kg), QC Sample No: CB20635 (CB20634, CB20635, CB20640)											
Volatiles - Sediment											
1,1,1,2-Tetrachloroethane	ND	5.0	87	90	3.4	89	88	1.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	97	100	3.0	100	103	3.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	92	93	1.1	95	90	5.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	92	93	1.1	96	90	6.5	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	106	4.8	103	103	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	107	110	2.8	99	101	2.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	96	94	2.1	94	93	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	90	90	0.0	93	93	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	87	89	2.3	91	85	6.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	86	83	3.6	86	88	2.3	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	87	88	1.1	90	88	2.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	100	97	3.0	87	90	3.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	88	89	1.1	89	87	2.3	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	93	97	4.2	97	97	0.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	100	101	1.0	99	96	3.1	70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	98	3.1	98	98	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	85	85	0.0	87	87	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	87	90	3.4	90	90	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	85	87	2.3	86	85	1.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	92	96	4.3	96	93	3.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	96	100	4.1	97	99	2.0	70 - 130	30	
2-Chlorotoluene	ND	5.0	88	91	3.4	89	88	1.1	70 - 130	30	
2-Hexanone	ND	25	82	86	4.8	82	78	5.0	70 - 130	30	
2-Isopropyltoluene	ND	5.0	95	98	3.1	99	98	1.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	85	86	1.2	87	85	2.3	70 - 130	30	
4-Methyl-2-pentanone	ND	25	100	98	2.0	97	91	6.4	70 - 130	30	
Acetone	ND	10	79	81	2.5	69	62	10.7	70 - 130	30	m
Acrylonitrile	ND	5.0	104	105	1.0	106	104	1.9	70 - 130	30	
Benzene	ND	1.0	96	96	0.0	95	94	1.1	70 - 130	30	
Bromobenzene	ND	5.0	91	96	5.3	94	93	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	90	96	6.5	97	97	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	95	96	1.0	94	94	0.0	70 - 130	30	
Bromoform	ND	5.0	79	83	4.9	80	79	1.3	70 - 130	30	
Bromomethane	ND	5.0	104	110	5.6	98	106	7.8	70 - 130	30	
Carbon Disulfide	ND	5.0	104	108	3.8	103	106	2.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	93	97	4.2	95	96	1.0	70 - 130	30	
Chlorobenzene	ND	5.0	92	92	0.0	95	92	3.2	70 - 130	30	
Chloroethane	ND	5.0	115	120	4.3	77	78	1.3	70 - 130	30	
Chloroform	ND	5.0	91	94	3.2	91	91	0.0	70 - 130	30	
Chloromethane	ND	5.0	96	97	1.0	99	97	2.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	101	3.0	105	105	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	98	97	1.0	97	94	3.1	70 - 130	30	
Dibromochloromethane	ND	3.0	90	94	4.3	90	90	0.0	70 - 130	30	
Dibromomethane	ND	5.0	98	97	1.0	97	94	3.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	89	80	10.7	81	77	5.1	70 - 130	30	
Ethylbenzene	ND	1.0	87	90	3.4	90	89	1.1	70 - 130	30	
Hexachlorobutadiene	ND	5.0	88	72	20.0	95	95	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB20634

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Isopropylbenzene	ND	1.0	86	90	4.5	89	89	0.0	70 - 130	30
m&p-Xylene	ND	2.0	83	87	4.7	86	85	1.2	70 - 130	30
Methyl ethyl ketone	ND	5.0	91	93	2.2	88	90	2.2	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	106	111	4.6	112	110	1.8	70 - 130	30
Methylene chloride	ND	5.0	90	95	5.4	94	95	1.1	70 - 130	30
Naphthalene	ND	5.0	93	96	3.2	91	94	3.2	70 - 130	30
n-Butylbenzene	ND	1.0	87	84	3.5	91	90	1.1	70 - 130	30
n-Propylbenzene	ND	1.0	86	88	2.3	90	89	1.1	70 - 130	30
o-Xylene	ND	2.0	89	92	3.3	90	90	0.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	86	87	1.2	91	90	1.1	70 - 130	30
sec-Butylbenzene	ND	1.0	91	92	1.1	94	93	1.1	70 - 130	30
Styrene	ND	5.0	84	85	1.2	85	85	0.0	70 - 130	30
tert-Butylbenzene	ND	1.0	90	92	2.2	91	90	1.1	70 - 130	30
Tetrachloroethene	ND	5.0	97	92	5.3	99	97	2.0	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	100	104	3.9	105	102	2.9	70 - 130	30
Toluene	ND	1.0	98	97	1.0	98	97	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	104	107	2.8	107	107	0.0	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	91	90	1.1	89	89	0.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	91	95	4.3	87	86	1.2	70 - 130	30
Trichloroethene	ND	5.0	95	96	1.0	96	94	2.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	109	110	0.9	102	100	2.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	105	103	1.9	99	109	9.6	70 - 130	30
Vinyl chloride	ND	5.0	110	109	0.9	110	113	2.7	70 - 130	30
% 1,2-dichlorobenzene-d4	93	%	103	104	1.0	104	104	0.0	70 - 130	30
% Bromofluorobenzene	98	%	98	98	0.0	100	97	3.0	70 - 130	30
% Dibromofluoromethane	114	%	99	103	4.0	100	107	6.8	70 - 130	30
% Toluene-d8	89	%	109	108	0.9	105	107	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%.

QA/QC Batch 445319 (mg/Kg), QC Sample No: CB20739 (CB20634, CB20635, CB20636, CB20640)

TPH by GC (Extractable Products) - Sediment

Ext. Petroleum H.C. (C9-C36)	ND	50	74	87	16.1	94	89	5.5	60 - 120	30
% n-Pentacosane	62	%	75	88	16.0	89	83	7.0	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 445686 (ug/kg), QC Sample No: CB21364 (CB20636)

Volatiles - Sediment

1,1,1,2-Tetrachloroethane	ND	5.0	106	100	5.8	98	100	2.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	93	94	1.1	89	88	1.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	105	95	10.0	97	99	2.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	101	93	8.2	88	93	5.5	70 - 130	30
1,1-Dichloroethane	ND	5.0	96	94	2.1	81	79	2.5	70 - 130	30
1,1-Dichloroethene	ND	5.0	98	98	0.0	76	76	0.0	70 - 130	30
1,1-Dichloropropene	ND	5.0	101	104	2.9	91	90	1.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	103	103	0.0	85	83	2.4	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	100	91	9.4	95	97	2.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	105	109	3.7	86	83	3.6	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	103	106	2.9	89	88	1.1	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	99	91	8.4	104	112	7.4	70 - 130	30
1,2-Dibromoethane	ND	5.0	105	97	7.9	90	91	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	98	94	4.2	80	80	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCB20634

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloroethane	ND	5.0	101	94	7.2	96	97	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	99	94	5.2	92	96	4.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	101	104	2.9	91	89	2.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	97	99	2.0	79	78	1.3	70 - 130	30	
1,3-Dichloropropane	ND	5.0	105	96	9.0	91	93	2.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	95	95	0.0	76	74	2.7	70 - 130	30	
2,2-Dichloropropane	ND	5.0	106	102	3.8	87	84	3.5	70 - 130	30	
2-Chlorotoluene	ND	5.0	101	102	1.0	87	88	1.1	70 - 130	30	
2-Hexanone	ND	25	99	86	14.1	88	91	3.4	70 - 130	30	
2-Isopropyltoluene	ND	5.0	105	110	4.7	93	92	1.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	100	102	2.0	83	81	2.4	70 - 130	30	
4-Methyl-2-pentanone	ND	25	104	91	13.3	100	103	3.0	70 - 130	30	
Acetone	ND	10	76	67	12.6	64	64	0.0	70 - 130	30	l,m
Acrylonitrile	ND	5.0	88	81	8.3	76	75	1.3	70 - 130	30	
Benzene	ND	1.0	99	98	1.0	89	92	3.3	70 - 130	30	
Bromobenzene	ND	5.0	96	95	1.0	83	85	2.4	70 - 130	30	
Bromochloromethane	ND	5.0	95	90	5.4	85	85	0.0	70 - 130	30	
Bromodichloromethane	ND	5.0	103	96	7.0	94	96	2.1	70 - 130	30	
Bromoform	ND	5.0	110	99	10.5	95	97	2.1	70 - 130	30	
Bromomethane	ND	5.0	96	94	2.1	75	74	1.3	70 - 130	30	
Carbon Disulfide	ND	5.0	98	101	3.0	71	70	1.4	70 - 130	30	
Carbon tetrachloride	ND	5.0	92	95	3.2	82	83	1.2	70 - 130	30	
Chlorobenzene	ND	5.0	99	97	2.0	84	84	0.0	70 - 130	30	
Chloroethane	ND	5.0	101	102	1.0	78	77	1.3	70 - 130	30	
Chloroform	ND	5.0	92	88	4.4	84	83	1.2	70 - 130	30	
Chloromethane	ND	5.0	87	86	1.2	68	70	2.9	70 - 130	30	m
cis-1,2-Dichloroethene	ND	5.0	89	86	3.4	69	71	2.9	70 - 130	30	m
cis-1,3-Dichloropropene	ND	5.0	104	97	7.0	87	89	2.3	70 - 130	30	
Dibromochloromethane	ND	3.0	110	102	7.5	100	103	3.0	70 - 130	30	
Dibromomethane	ND	5.0	102	92	10.3	90	92	2.2	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	77	97	23.0	60	60	0.0	70 - 130	30	m
Ethylbenzene	ND	1.0	99	101	2.0	87	86	1.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	93	117	22.9	79	71	10.7	70 - 130	30	
Isopropylbenzene	ND	1.0	104	109	4.7	96	95	1.0	70 - 130	30	
m&p-Xylene	ND	2.0	104	105	1.0	90	89	1.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	81	78	3.8	75	73	2.7	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	99	89	10.6	85	86	1.2	70 - 130	30	
Methylene chloride	ND	5.0	83	79	4.9	73	72	1.4	70 - 130	30	
Naphthalene	ND	5.0	113	105	7.3	98	101	3.0	70 - 130	30	
n-Butylbenzene	ND	1.0	99	113	13.2	81	75	7.7	70 - 130	30	
n-Propylbenzene	ND	1.0	100	105	4.9	86	83	3.6	70 - 130	30	
o-Xylene	ND	2.0	110	110	0.0	98	100	2.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	105	114	8.2	89	87	2.3	70 - 130	30	
sec-Butylbenzene	ND	1.0	105	114	8.2	89	87	2.3	70 - 130	30	
Styrene	ND	5.0	109	107	1.9	89	89	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	105	109	3.7	94	92	2.2	70 - 130	30	
Tetrachloroethene	ND	5.0	97	101	4.0	85	84	1.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	91	80	12.9	83	84	1.2	70 - 130	30	
Toluene	ND	1.0	96	95	1.0	84	86	2.4	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	95	96	1.0	75	72	4.1	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	103	94	9.1	84	86	2.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	111	102	8.5	87	85	2.3	70 - 130	30	
Trichloroethene	ND	5.0	100	102	2.0	88	88	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCB20634

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Trichlorofluoromethane	ND	5.0	96	106	9.9	78	76	2.6	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	81	105	25.8	77	72	6.7	70 - 130	30
Vinyl chloride	ND	5.0	100	102	2.0	74	73	1.4	70 - 130	30
% 1,2-dichlorobenzene-d4	102	%	98	99	1.0	99	98	1.0	70 - 130	30
% Bromofluorobenzene	96	%	102	102	0.0	102	103	1.0	70 - 130	30
% Dibromofluoromethane	88	%	92	89	3.3	90	90	0.0	70 - 130	30
% Toluene-d8	101	%	99	98	1.0	98	98	0.0	70 - 130	30

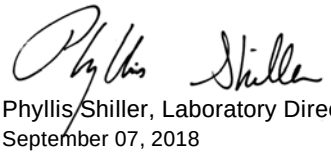
Comment:

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

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

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

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



Phyllis Shiller, Laboratory Director
September 07, 2018

Friday, September 07, 2018

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCB20634 - 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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

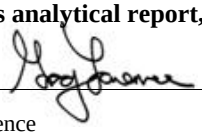
Laboratory Sample ID(s): CB20634-CB20640 ***Sampling Date(s):*** 8/28/2018

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

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: 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, September 07, 2018

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

September 07, 2018

SDG I.D.: GCB20634

SDG Comments

Metals Analysis: CB20637, CB20638, CB20639
The client requested a site specific list of elements which is shorter than the 6010 RCP list. Only copper is reported as requested on the chain of custody record.

ETPH Narration

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

Instrument:

AU-FID1 08/30/18-1 Jeff Bucko, Chemist 08/30/18

CB20634, CB20635, CB20636

The initial calibration (ETPH723I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 08/29/18-1 Jeff Bucko, Chemist 08/29/18

CB20640

The initial calibration (ETPH814I) 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 445319 (CB20739)

CB20634, CB20635, CB20636, CB20640

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 08/29/18 08:52 Rick Schweitzer, Chemist 08/29/18

CB20634, CB20635, CB20636, CB20640

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 445240 (CB20641)

CB20634, CB20635, CB20636, CB20640

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NY # 11301

Certification Report

September 07, 2018

SDG I.D.: GCB20634

Mercury Narration

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

ICP Metals Narration

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

QC Batch 445221 (Samples: CB20634, CB20635, CB20636, CB20637, CB20638, CB20639, CB20640): -----

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 08/29/18 08:56 Cindy Pearce, Emily Kolominskaya, Tina Hall, Chemist 08/29/

CB20634, CB20635, CB20636, CB20637, CB20638, CB20639, CB20640

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 445221 (CB20630)

CB20634, CB20635, CB20636, CB20637, CB20638, CB20639, CB20640

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 08/29/18-1 Adam Werner, Chemist 08/29/18

CB20634, CB20635, CB20636, CB20640

The initial calibration (PC827AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC827BI) 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 445080 (CB19799)

CB20634, CB20635, CB20636, CB20640

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

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RCP Certification Report

September 07, 2018

SDG I.D.: GCB20634

PCB Narration

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

SVOA Narration

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

QC Batch 445176 (Samples: CB20634, CB20635, CB20636, CB20640): -----

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

The LCS/LCSD recovery is below the method criteria. A low bias is possible. (Benzoic Acid)

The LCS recovery is below the low range but within the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (4,6-Dinitro-2-methylphenol)

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

Instrument:

CHEM05 08/28/18-1 Keith Aloisa, Chemist 08/28/18

CB20634, CB20635, CB20636, CB20640

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM05/SPLIT_0827A):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 21% (20%), 2-Nitroaniline 24% (20%), 4,6-Dinitro-2-methylphenol 21% (20%), Benzoic acid 24% (20%), Pentachlorophenol 36% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.085 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0828_04-SPLIT_0827A):
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 0.083 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 445176 (CB20488)

CB20634, CB20635, CB20636, CB20640

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(11%), 4,6-Dinitro-2-methylphenol(24%),

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RCP Certification Report

September 07, 2018

SDG I.D.: GCB20634

SVOA Narration

Benzoic Acid(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(14%), Benzoic Acid(<10%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: 4,6-Dinitro-2-methylphenol(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%)

VOA Narration

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

QC Batch 445496 (Samples: CB20634, CB20635, CB20640): -----

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, therefore a slight low bias is likely. (Acetone)

QC Batch 445686 (Samples: CB20636): -----

The LCSD and Batch MS/MSD recovery is below the lower range but within the method criteria. A slight low bias is possible. (Acetone)

Instrument:

CHEM18 08/29/18-1 Jane Li, Chemist 08/29/18

CB20634, CB20635, CB20640

Initial Calibration Verification (CHEM18/VT-M0817):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2,4-Trichlorobenzene 21% (20%), Acetone 34% (20%), Methyl Ethyl Ketone 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 (CHEM18/0829M02-VT-M0817):
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.

CHEM31 08/30/18-1 Jane Li, Chemist 08/30/18

CB20636

Initial Calibration Verification (CHEM31/VT-L0828):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 29% (20%), Chloroethane 29% (20%)
The following compounds did not meet recommended response factors: Bromoform 0.086 (0.1), Tetrachloroethene 0.123 (0.2), Trichloroethene 0.194 (0.2)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM31/0830_02-VT-L0828):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

September 07, 2018

SDG I.D.: GCB20634

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: Bromoform 0.097 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 445686 (CB21364)

CB20636

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

QC (Site Specific):

Batch 445496 (CB20635)

CB20634, CB20635, CB20640

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: Acetone(69%)
All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(62%)
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%.

Temperature Narration

The samples were received at 2.1C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ No ☐
Temp 3.1 °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/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwilley@Tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street Suite 1100
Middletown CT

Project: Louisville Mfg
Report to: Lynn Willey
Invoice to: Tighe + Bond

Project P.O: E-055-448

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/28/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	ETPH	RCRA metals	PCBs	TAL Cyanide	GL Amber 8 oz w/H3PO4	Soil VOA Vials ☒ methanol ☒ H2O	GL Soil container (4) oz	GL Soil container (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 w/thio	Bacteria Bottle as is
20634	SED-07	SE	9/28/18	14:40	X	X	X	X	X		3	2										
20635	SED-08			14:25	X	X	X	X	X		3	2										
20636	SED-09			15:10	X	X	X	X	X		3	2										
20637	SED-06A			15:45						X			1									
20638	SED-06B			15:50						X			1									
20639	SED-06C			15:55						X			1									
20640	SED-Dup-1			0900	X	X	X	X	X		3	2										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9/28/18	1655

Comments, Special Requirements or Regulations:
DAS Pricing
quote: TE01807DA

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
RSR-032 Attachment 22
Page 802 of 1282

Client Services

Subject: FW: Phoenix Labs - GCB20634, ROCKVILLE MGP - COC Acknowledgement
Attachments: noaa_9327_DS1.pdf

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: Wednesday, August 29, 2018 9:15 AM
To: Client Services; Greg Lawrence
Cc: Benjamin P. Caswell
Subject: RE: Phoenix Labs - GCB20634, ROCKVILLE MGP - COC Acknowledgement

Sarah:

We are looking for sediment criteria Threshold Effects Concentrations (TECs)/ Probable effects concentrations (PECs) and NOAA Effects Range Low (ERL).

Thanks.

Lynn E. Willey, P.G., 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 <clientservices@phoenixlabs.com>
Sent: Wednesday, August 29, 2018 9:06 AM
To: Lynn E. Willey <LEWilley@tighebond.com>; Greg Lawrence <greg@phoenixlabs.com>
Cc: Benjamin P. Caswell <BCaswell@tighebond.com>
Subject: RE: Phoenix Labs - GCB20634, ROCKVILLE MGP - COC Acknowledgement
Importance: High

From: Lynn E. Willey [mailto:LEWilley@tighebond.com]
Sent: Tuesday, August 28, 2018 9:21 PM
To: Client Services
Cc: Benjamin P. Caswell
Subject: Re: Phoenix Labs - GCB20634, ROCKVILLE MGP - COC Acknowledgement

Hi there

For the SED samples, these are sediment samples and will need to be compared to squirt / sediment TECs.

Thanks

Lynn
Sent from my iPhone

On Aug 28, 2018, at 9:17 PM, "clientservices@phoenixlabs.com" <clientservices@phoenixlabs.com> wrote:

> Lynn,
>
> Price Quote#: TI012517BA
>
> Purchase Order#:E-0755-44B
>
> GCB20634 Criteria:
> None.
>
> Please email client services only if you require criteria different than what is listed.
>
> Delivery group GCB20634 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CB20634	SED-07
CB20635	SED-08
CB20636	SED-09
CB20637	SED-06A
CB20638	SED-06B
CB20639	SED-06C
CB20640	SED-DUP-1

> The samples were received at 2.1C with cooling initiated. (Note acceptance criteria for relevant matrices 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.
>
> <Sample Acknowledgement.pdf>



Screening Quick Reference Tables

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All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

This set of NOAA Screening Quick Reference Tables, or SQuiRTs, presents screening concentrations for inorganic and organic contaminants in various environmental media. Additional reference material, such as guidelines for sample preservation, are also included.

NOAA identifies potential impacts to coastal resources and habitats likely to be affected by hazardous wastes. To screen for substances which may threaten natural resources of concern to NOAA, environmental concentrations are compared to these screening levels. These tables are intended for preliminary screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels. NOAA does not endorse their use for any other purposes. Screening levels are reported with the number of significant figures they were originally reported with.

In this new version, column headings link to OR&R's web site wherebrief descriptions of the benchmark may be found. However, detailed guidance on the recommended application of various screening guidelines is provided in the original sources (listed in each SQuiRT section, with web links for many). Users of the SQuiRT cards are strongly encouraged to review supporting documentation to determine appropriateness for their specific use.

The SQuiRT card set has been re-organized from earlier versions to accommodate expansion. Benchmarks from numerous new sources have been incorporated, and the list of analytes vastly increased. The SQuiRT cards present benchmarks representing different degrees of protectiveness. Multiple benchmarks are also provided in many cases: the user is advised to review the derivation of any particular benchmark before selecting a specific value. Information is still presented in sections, with *new sections* appearing in this expanded version:

- Inorganics in Sediment (freshwater and marine)
- Inorganics in Soil
- Inorganics in Water (groundwater and surface water)
- Organics in Sediment
- Organics in Water and Soil
- *PCB Composition*
- *Toxic Equivalency Factors*
- *Composition by Carbon Range*
- Guidelines for Sample Collection & Storage
- Analytical Methods for Inorganics
- Analytical Methods for Organics

Footnotes within each SQuiRT section which appear at the bottom of the page are only to aid in deciphering the nature of specific entries. Due to space constraints, notations which relate to the source for individual values are explained at the end of the section. Organic chemicals are now listed alphabetically, without categorization. A few synonyms are provided, but CAS numbers are also presented to aid in identifying and finding specific analytes. Except as noted, all concentrations in the SQuiRT cards are in parts per billion.

For surface water samples, because releases from hazardous waste sites are often continuous and long-term, concentrations are most often compared directly with chronic benchmarks, when available. Groundwater concentrations are also screened against chronic benchmarks. However, suitable site-specific dilution factors should be applied to allow for dilution upon migration and discharge of groundwater to surface water. The SQuiRT cards present U.S. Environmental Protection Agency (EPA) Maximum Contaminant Levels (MCLs), applicable to drinking water sources and secondary MCLs applicable to groundwater, supplemented by values from Canada and the United Nations World Health Organization.

Preference for surface water and groundwater benchmarks is given to U.S. EPA Ambient Water Quality Criteria (AWQC). This is generally followed by Tier II Secondary Acute Values (SAVs) or available standards and guidelines from other regulatory agencies. Tier II SAVs are derived using a similar approach to AWQC, but do not have sufficient supporting data for full criteria calculation. Lowest Observable Effect Levels (LOELs) were originally published by EPA with AWQC. Around 2000, EPA stopped publishing these values, however, LOELs are reproduced here when no other benchmark is available, because in many instances, they formed the basis for state standards.

For many trace elements, AWQC are now expressed in terms of the "dissolved" fraction, which is essentially defined operationally as a filtered fraction. Likewise, the toxicity of many trace elements is related to the water hardness, and the values presented are for a default hardness of 100 mg/L $CaCO_3$. Equations are provided in the SQuiRT cards to calculate the exact criteria for a given hardness, or, to convert from unfiltered, total concentrations to "dissolved" fractions.



Screening Quick Reference Table for Inorganics in Sediment

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Analyte		FRESHWATER SEDIMENT									MARINE SEDIMENT						
All concentrations in parts per billion dry weight unless specified otherwise		"Background" [1]	ARCS *H. azteca* TEL [2]	TEC [3]	TEL [3]	LEL [4]	PEC [3]	PEL [3]	SEL [4]	UET [1]	T_{20} [5]	TEL [6]	ERL [6]	T_{50} [5]	PEL [6]	ERM [6]	AET [7]
Predicted Toxicity Gradient:		> Increasing →									> Increasing →						
Aluminum (%)	Al	0.26%	2.55%														1.8% N
Antimony	Sb	160								3,000 M	630			2,400			9,300 E
Arsenic	As	1,100	10,798	9,790	5,900	6,000	33,000	17,000	33,000	17,000 I	7,400	7,240	8,200	20,000	41,600	70,000	35,000 B
Barium	Ba	700										130,100#					48,000 A
Cadmium	Cd	100-300	583	990	596	600	4,980	3,530	10,000	3,000 I	380	680	1,200	1,400	4,210	9,600	3,000 N
Chromium	Cr	7,000-13,000	36,286	43,400	37,300	26,000	111,000	90,000	110,000	95,000 H	49,000	52,300	81,000	141,000	160,000	370,000	62,000 N
Cobalt	Co	10,000				50,000+											10,000 N
Copper	Cu	10,000-25,000	28,012	31,600	35,700	16,000	149,000	197,000	110,000	86,000 I	32,000	18,700	34,000	94,000	108,000	270,000	390,000 MO
Iron (%)	Fe	0.99-1.8 %	18.84%			2%			4%	4% I							22% N
Lead	Pb	4,000-17,000	37,000	35,800	35,000	31,000	128,000	91,300	250,000	127,000 H	30,000	30,240	46,700	94,000	112,000	218,000	400,000 B
Manganese	Mn	400,000	630,000			460,000			1,100,000	1,100,000 I							260,000 N
Mercury	Hg	4-51		180	174	200	1,060	486	2,000	560 M	140	130	150	480	700	710	410 M
Nickel	Ni	9,900	19,514	22,700	18,000	16,000	48,600	36,000	75,000	43,000 H	15,000	15,900	20,900	47,000	42,800	51,600	110,000 EL
Selenium	Se	290															1,000 A
Silver	Ag	<500				500 +				4,500 H	230	730	1,000	1,100	1,770	3,700	3,100 B
Strontium	Sr	49,000															
Tin	Sn	5,000										48 *					> 3,400 N
Vanadium	V	50,000															57,000 N
Zinc	Zn	7,000-38,000	98,000	121,000	123,000	120,000	459,000	315,000	820,000	520,000 M	94,000	124,000	150,000	245,000	271,000	410,000	410,000 I
Lead 210 $^{bq}/_{g}$ dw						0.5 ^			< 9.7 ^								
Polonium 210 $^{bq}/_{g}$ dw						0.6 ^			< 8.7 ^								
Radium 226 $^{bq}/_{g}$ dw						0.1 ^			< 13 ^								
Sulfides										130,000 M							4,500 MO

\# - Based on SLC approach using sensitive species HC5%; ES&T 2005 39(14):5148-5156.
* - Based upon EQp approach using current AWQC CCC
^ - Based on SLC approach to derive LEL and SEL; Env'al Monitor & Ass'ment 2005 110:71-85
\+ - Carried over from Open Water disposal Guidelines; treated as if LEL for management decisions.
Bioassay endpoints: M – Microtox; B – Bivalve; E – Echinoderm larvae; O – Oyster larvae; A – Amphipod; N – Neanthes; L –Larval bioassay; plus, I – Infaunal community impacts

Sources
1 – Buchman, M. 1999. NOAA HAZMAT Report 99-1.
2 – EPA 905-R96-008
3 – Arch ET&C 2000, 39(1)20- TEL and PEL are also known as Canadian ISQGs and PELs
4 – Guidelines for the protection and management of aquatic sediment quality in Ontario Aug 1993
5 – ET&C 2002, 21(9)1993-
6 – Ecotox. 1996, 5(4):253-
7 – Chapter 173-204 WAC, 1991/95 as supplemented by WA Dept of Ecology staff with unpublished data.



Screening Quick Reference Table for Inorganics in Soil

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ANALYTE			BACKGROUND [1]		DUTCH STANDARDS [2]		Eco-SSL [3]				Microbes [4]
All concentrations in parts per billion dry weight unless specified otherwise		CAS Number	Mean	Range	Target	Intervention	Avian	Inverts	Mammals	Plants	
Aluminum	Al	7429905	4.70%	0.5- >10%						50,000 a	600,000
Antimony	Sb	7440360	480	bd-8,800	3,000	15,000		78,000	142 v	5,000 a	
Arsenic	As	7440382	5,200	bd-97,000	900 L	55,000	43,000	60,000 a	5,700 v	18,000	100,000
Barium	Ba	7440393	440,000	10,000-0.5%	160,000	625,000		330,000	1,040 v	500,000 a	3,000,000
Beryllium	Be	7440417	630	bd-15,000	1,100	30,000 S		40,000	1,060 v	10,000 a	
Boron	B	7440428	26,000	bd-300,000						500 a	20,000
Bromine	Br	7726956	560	bd-11,000	20,000					10,000 a	
Cadmium	Cd	7440439			800	12,000	770	20,000 a	2.22 v	4,000 a	20,000
Chromium III	Cr	7440473	< 37,000	1,000-0.2%	< 380 L	< 220,000 L	26,000	<400 a	34,000	< 1,000 a	< 10,000
Chromium VI	Cr	18540299	< 37,000		< 380 L	< 220,000 L		400 a	81,000	< 1,000 a	< 10,000
Cobalt	Co	7440484	6,700	bd-70,000	2,400 L	180,000 L	120,000		140 v	13,000	1,000,000
Copper	Cu	7440508	17,000	bd-700,000	3,400 L	96,000 L	28,000	50,000 a	5,400 v	70,000	100,000
Cyanide (total complex)	CN	57125			5,000	50,000 (pH>5)			1,330 v		
Cyanide (total free)	CN				1,000	20,000					
Fluorine	F	7782414	210,000	bd-0.37%	500,000					200,000 a	30,000
Iodine	I	7553562	750	bd-9,600						4,000 a	
Iron	Fe	7439896	1.80%	0.01- >10%							200,000
Lanthanum	La	7439910	30,000	bd-200,000							50,000
Lead	Pb	7439921	16,000	bd-700,000	55,000 L	530,000	11,000	500,000 a	53.7 v	50,000 a	900,000
Lithium	Li	7439932	20,000	bd-140,000						2,000 a	10,000
Manganese	Mn	7439965	330,000	bd-0.7%			4,300,000	450,000	4,000,000	220,000	100,000
Mercury	Hg	7439976	58	bd-4,600	300	10,000		100 a v		300 a	30,000
Mercury(methyl)		22967926			37 L	4,000 L		< 100 a v	1.58 v	< 300 a	
Molybdenum	Mo	7439987	590	bd-15,000	3,000	190,000 L				2,000 a	200,000
Nickel	Ni	7440020	13,000	bd-700,000	260 L	100,000 L	210,000	200,000 a	13,600 v	30,000 a	90,000
Selenium	Se	7782492	260	bd-4,300	700 L	100,000 S	1,2000	4,100	630	520	100,000
Silver	Ag	7440224				15,000 S	4,200		4,040 v	2,000 a	50,000
Strontium	Sr	7440246	120,000	bd-0.3%							
Sulfide		18496258							3.58 v		
Sulfur	S	7704349	0.12%	bd-4.8%							
Technetium	Tc	7440268								200 a	

1: bd – below detection
2: S – serious contamination level; L – Environmental Risk Limit



Screening Quick Reference Table for Inorganics in Soil

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All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

ANALYTE (All concentrations in parts per billion dry weight unless specified otherwise)		CAS Number	BACKGROUND [1]		DUTCH STANDARDS [2]		Eco-SSL [3]				Microbes [4]
			Mean	Range	Target	Intervention	Avian	Inverts	Mammals	Plants	
Tellurium	Te	13494809				600,000					
Thallium	Tl	7440280	8,600	2,20-31,000	1,000	15,000 S			56.9 v	1,000 a	
Tin	Sn	7440315	890	bd-10,000	19,000 background	900,000 S			7,620 v	50,000 a	2,000,000
Titanium	Ti	7440326	0.224 %	0.007-2 %							1,000,000
Tin as Triphenyltin		668348				< 2,500					
Tungsten	W	7440337									400,000
Uranium	U	7440611	2,300	290-11,000						5,000 a	
Vanadium	V	7440622	58,000	bd-500,000	42,000	250,000 S	7,800		1,590 v	2,000 a	20,000
Zinc	Zn	7440666	48,000	bd-0.29%	16,000 L	350,000 L	46,000	6,620 v		50,000 a	100,000

Sources

1 – USGS Prof. Paper 1270, 1984. Mean is geometric mean of national data.

2 – Entry is lower of current VROM Environmental Quality standards or the updated RIVM Environmental Risk Limits. Risk limits are typically divided by 100 to derive the Target value; this computation has not been done here.
Dutch Target/Intervention: E.M.J. Verbruggen, R. Posthumus and A.P. van Wezel, 2001. Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water: Updated proposal for first series of compounds. Nat. Inst. Public Health and the Env., and subsequent updates as published elsewhere.
Min. Housing, Spatial Plan. And the Env., 2000. Annexes Circular on target values and intervention values for soil remediations.

3 – Entry is lower of either:
EPA Eco-SSLs, www.epa.gov/ecotox/ecossl/
a – ORNL Screening benchmark for earthworms and soil microorganisms: ORNL 1997a, ES/ER/TM-126/R2
v – EPA R5 Eco Screening levels soil - shrew or vole, www.epa.gov/reg5rcra/ca/

4 - ORNL 1997b, ES/ER/TM-85/R3.

1: bd – below detection
2: S – serious contamination level; L – Environmental Risk Limit



Screening Quick Reference Table for Inorganics in Water

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ELEMENT All concentrations in parts per billion unless specified otherwise		GROUND WATER [1]	SURFACE WATERS [2]			
			Freshwater		Marine	
			Acute	Chronic	Acute	Chronic
Aluminum	Al	50-200 *	pH 750	pH 87		
Antimony	Sb	6	88 p	30 p	1,500 p	500 p
Arsenic III	As^{+3}	<10		190 E		2.3 NZ
Arsenic V	As^{+5}	< 10	66 T	3.1 T	2,319 *	
Arsenic, Total	As	10	340	150	69	36
Barium	Ba	2,000	110 T	3.9 E	1,000 BC	200 BC
Beryllium	Be	4	35 T	0.66 T	1,500 BC	100 BC
Boron	B	5,000 C	30 T	1.6 T		1,200
Cadmium	Cd	5	2.0 †	0.25 †	40	8.8
Chromium III	Cr^{+3}	< 100	570 †	74 †	10,300 *	27.4 NZ
Chromium VI	Cr^{+6}	< 100	16	11	1,100	50
Chromium, Total	Cr	100				
Cobalt	Co		1,500 T	3.0 E		1 NZ
Copper	Cu	1,300	13 †	9 †	4.8	3.1
Fluoride	F	4,000	200 BC (hardness < 50)		1,500 BC	
Gallium	Ga			18 NZ		use 18 NZ
Iron	Fe	300 *		1,000	300 BC	50 BC
Lanthium	La			0.04 NZ		
Lead	Pb	15	65 †	2.5 †	210	8.1
Lithium	Li		260 T	14 T		
Manganese	Mn	50 *	2,300 T	80 E		100 BC
Mercury	Hg	2	1.4	0.77	1.8	0.94
Methyl Mercury			0.099 T	0.0028 T		
Molybdenum	Mo	70 W	16,000 T	34 NZ		23 NZ
Nickel	Ni	20 W	470 †	52 †	74	8.2
Phosphorus	P					0.1
Potassium	K		373,000 BC			
Selenium	Se	50	13-186 total	5 total	290	71
Silver	Ag	100 *	1.6 (½) †	0.36 T	0.95 (½)	
Strontium	Sr		15,000 T	1,500 T		
Thallium	Tl	2	110 T	0.03 NZ	2,130 *	17 NZ
Tin as TBT			0.46	0.072	0.42	0.0074

1: * – Secondary standard
2: pH – criteria is pH dependent ; p - proposed; † - hardness dependent; * - EPA LOEL ; (½) - CMC is halved to compare to 1985 Guideline derivation



Screening Quick Reference Table for Inorganics in Water

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ELEMENT All concentrations in parts per billion unless specified otherwise		GROUND WATER [1]	SURFACE WATERS [2]			
			Freshwater		Marine	
			Acute	Chronic	Acute	Chronic
Tin as Di-N-Butyl			0.08 BC			
Tin as Triethyl			0.4 BC			
Tin as Triphenyl			0.022 BC		34 BC	
Titanium	Ti		2,000 BC			
Uranium	U	30	46 T	0.5 NZ	500 BC	100 BC
Vanadium	V		280 T	19 E		50 BC
Zinc (Zn)	Zn	5,000 *	120 †	120 †	90	81
Zirconium	Zr		310 T	17 T		
Hydrogen Sulfide			2		2	
Cyanide, free	CN	200	22	5.2	1	1

Freshwater criterion for certain elements (†) are expressed as a function of hardness (mg/L) in the water column. The values shown assume 100 mg/L. Values for a different hardness may be calculated using the following equations to arrive at a CMC or CCC for *filtered* samples. Hardness may range up to 400 mg/L as calcium carbonate. For hardness above this range, use 400 mg/L as the maximum value allowed.

For salinity between 1 and 10 ppt, use the more stringent of either fresh or marine values.

Sources

1 – Primary entry is the US EPA MCL value, followed by the WHO drinking water guidelines.
Maximum Contaminant Levels (MCLs): http://www.epa.gov/safewater/index.html
W – World Health Organization's (WHO) Drinking water guidelines: http://www.who.int/water_sanitation_health/dwq/en/
C – Canadian water Quality Guidelines: http://www.ec.gc.ca/CEQG-RCQE/English/Ceqg/Water/default.cfm

2 – Primary entry is the US Ambient Water Quality Criteria, followed by the lowest of Tier II SAVs or available standards and guidelines.
EPA Ambient water Quality Criteria (AWQC): http://www.epa.gov/waterscience/criteria/aqlife.html
T – Tier II Secondary Acute Value: http://www.esd.ornl.gov/programs/ecorisk/tools.html
BC – British Columbia Water Quality Guidelines (either working or recommended): http://www.env.gov.bc.ca/wat/wq/
NZ – Australian & New Zealand ECLs and Trigger values: ANZECC Oct 2000, Volume 1, The Guidelines. www.mfe.govt.nz/publications/
E – EcoUpdate: www.epa.gov/oswer/riskassessment/ecoup/

Lowest Observable Effect Levels (LOELs) previously published by EPA are also included since these essentially were the basis for many state standards.
EPA LOELs: EPA Water quality Criteria Summary, Office of Science & Technology, Health & Ecological Criteria Div., Ecological Risk Assessment Branch, 1991.
Full listings appeared in various Fed. Register notices and in EPA's Quality Criteria for Water, 1992.

1: * – Secondary standard
2: pH – criteria is pH dependent ; p - proposed; † - hardness dependent; * - EPA LOEL ; (½) - CMC is halved to compare to 1985 Guideline derivation



Screening Quick Reference Table for Inorganics in Water

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ELEMENT	HARDNESS CALCULATIONS – UNFILTERED FRESHWATER CRITERIA		UNFILTERED TO FILTERED CALCULATIONS		
	CMC	CCC	Fresh water CMC	Freshwater CCC	Marine CMC / CCC
Arsenic (As)			1	1	1
Cadmium (Cd)	$CMC = e^{1.0166 [ln(hardness)] - 3.924}$	$CCC = e^{0.7409 [ln(hardness)] - 4.719}$	CF = 1.136672 - 0.041838 [*ln*(hardness)]	CF = 1.101672 - 0.041838 [*ln*(hardness)]	CF = 0.994
Chromium III (Cr+3)	$CMC = e^{0.819 [ln(hardness)] + 3.7256}$	$CCC = e^{0.819 [ln(hardness)] + 0.6848}$	CF = 0.316	CF = 0.860	–
Chromium VI (Cr +6)			CF = 0.982	CF = 0.962	CF = 0.993
Copper (Cu)	$CMC = e^{0.9422 [ln(hardness)] - 1.7}$	$CCC = e^{0.8545 [ln(hardness)] - 1.702}$	CF = 0.960	CF = 0.960	CF = 0.83
Lead (Pb)	$CMC = e^{1.273 [ln(hardness)] - 1.46}$	$CCC = e^{1.273 [ln(hardness)] - 4.705}$	CF = 1.46203 - 0.145712 [*ln*(hardness)]	SAME AS CMC	CF = 0.951
Mercury (Hg)			CF = 0.85	CF = 0.85	CF = 0.85
Nickel (Ni)	$CMC = e^{0.846 [ln(hardness)] + 2.255}$	$CCC = e^{0.846 [ln(hardness)] + 0.0584}$	CF = 0.998	CF = 0.997	CF = 0.990
Selenium (Se)			–	–	CF = 0.998
Silver (Ag)	$CMC = e^{1.72 [ln(hardness)] - 6.52}$	CCC — No criteria	CF = 0.85	–	CF = 0.85 / –
Zinc (Zn)	$CMC = e^{0.8473 [ln(hardness)] + 0.884}$	$CCC = e^{0.8473 [ln(hardness) + 0.884}$	CF = 0.978	CF = 0.986	CF = 0.946

Freshwater criterion for certain elements are expressed as a function of hardness (mg/L) in the water column. The values shown assume 100 mg/L. Values for a different hardness may be calculated using the above equations to arrive at a CMC or CCC for *filtered* samples. Hardness may range up to 400 mg/L as calcium carbonate. For hardness above this range, use 400 mg/L as the maximum value allowed.

Criteria for most metals are expressed as standards for samples filtered through 0.45 m filter (*i.e.*, "dissolved"). To convert unfiltered concentrations to filtered, multiply the unfiltered concentration value by the appropriate Conversion Factor (CF) above. For cadmium and lead, the conversion factor itself is hardness-dependent.

CMC: Criteria Maximum Concentration is the highest level for a 1-hour average exposure not to be exceeded more than once every three years, and is synonymous with "acute."
CCC: for a 4-day average exposure not to be exceeded more than once every three years, and is synonymous with "chronic."

Sources

EPA Ambient water Quality Criteria (AWQC): http://www.epa.gov/waterscience/criteria/aqlife.html



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2,3,7,8-TCDD dioxin TEQs	1746016		0.00085 c			0.0215 c			0.0088†H		1 S		0.00085 c			0.0215 c		0.0036 N	
Acenaphthene	83329		6.71 c			88.9 c			290 M			19	6.71	16	116	88.9	500	130 E	
Acenaphthylene	208968		5.87 c			128 c			160 M			14	5.87	44	140	128	640	71 E	
Acrylonitrile	107131									0.07	100 S								
Aldrin	309002				2			80	40 I	0.06	1,700 LB							9.5 AE	
Aldrin + Dieldrin + Endrin	na									5	140 L								
Anthracene	120127	10	46.9 c	57.2	220	245 c	845	3,700	260 M	39 LB	1,600 LB	34	46.9	85.3	290	245	1,100	280 E	
Atrazine	1912249									0.2	710 LB								
BCH compounds (sum)	na									10	6,400 L								
Benz[a]anthracene	56553	15.72	31.7	108	320	385	1,050	14,800	500 I	25 L	2,500 L	61	74.8	261	466	693	1,600	960 E	
Benzene	71432									10	1,000								57
Benzo(ghi)perylene	191242				170			3,200	300 M	570 LB	33,000 LB	67			497			670 M	
Benzo[a]pyrene	50328	32.4	31.9	150	370	782	1,450	14,400	700 I	52 L	7,000 L	69	88.8	430	520	763	1,600	1,100 E	
Benzo[b]fluoranthene	205992											130			1,107			1,800 E I	
Benzo[k]fluoranthene	207089	27.2			240			13,400	13,400B	380 LB	38,000 LB	70			537			1,800 E I	
Benzoic acid	65850																	65 O	
Benzyl alcohol	100516																	52 B	
BHC, alpha (α-HCH)	319846				6			100		3	< 2,000								
BHC, beta (β-HCH)	319857				5			210		9	< 2,000								
BHC, delta (δ-HCH)	319868									< 10	< 2,000								
BHC, gamma- (γ-HCH; Lindane)	58899		0.94	2.37	3	1.38	4.99	10	9 I	0.05	1,200 L		0.32			0.99		> 4.8 N	3.7
Biphenyl	92524											17			73				1,100
Bis(2-ethylhexyl)phthalate (DEHP)	117817								750 †M	< 100	10,000 LB		182			2647		1,300 I	
Bromoform (Tribromomethane)	75252										75,000								650
Butanol	35296721										30,000 S								
Butyl acetate, 1- or 2-	na										200,000 S								
Butyl benzyl phthalate	85687									< 100	48,000 LB							63 M	1,100
Carbaryl	63252									0.03	450 LB								
Carbofuran	1563662									0.02	17 LB								
Carbon tetrachloride (Tetrachloromethane; Tetra)	56235									170 LB	1,000								1,200

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Catechol (o-Dihydroxybenzene)	120809									3.2 LB	2,600 LB								
Chlordane	57749		4.5	3.24	7	8.9	17.6	60	30 I	0.03	4,000		2.26	0.5		4.79	6	2.8 A	
Chlordane (alpha)	5103719									< 0.03	< 4,000								
Chlordane (gamma)	5103742									< 0.03	< 4,000								
Chloro, 4- 2-methyl phenol	1570645										< 15,000 S								
Chloro, 4- 2-methylphenoxy acetic acid (MCPA)	94746									0.05	4,000								
Chloro, 4- 3-methyl phenol	59507										< 15,000 S								
Chloro, 4- methyl phenols	na										15,000 S								
Chloroaniline	27134265									5	50,000								
Chlorobenzenes (sum)	na									30	30,000								820
Chloroform (trichloromethane)	67663									20	10,000								
Chloronaphthalene, 1-	90131									57 LB	< 10,000								
Chloronaphthalene, 2-	91587									250 LB	< 10,000								
Chlorophenol, 2-	95578									55 LB	7,800 LB							0.333	
Chlorophenol, 3-	108430									35 L	14,000 L								
Chlorophenol, 4-	106489									20 LB	1,400 LB								
Chlorophenols (sum)	na									10	10,000								
Chrysene	218019	26.83	57.1	166	340	862	1,290	4,600	800 I	8,100 LB	35,000 LB	82	108	384	650	846	2,800	950 E	
Cresol [m-] (3-Methyl phenol)	108394									1,600 L	16,000 L								
Cresol [o-] (2-Methyl phenol)	95487									500 L	50,000 L							8 B	
Cresol [p-] (4-Methyl phenol)	106445									5.1 LB	2,600 LB							100 B	
Cresols, sum	1319773									50	5,000								
Cyclohexanone	108941									100	45,000								
DDD, 4,4- (p,p-DDD, TDE)	72548		3.54	4.88	8	8.51	28	60	< 60 I	3.9 LB	34,000 LB		1.22	2		7.81	20	< 16 I	
DDE, 4,4- (p,p-DDE)	72559		1.42	3.16	5	6.75	31.3	190	<50 I	5.8 LB	1,300 LB		2.07	2.2		374	27	< 9 I	
DDT, 4,4- (p,p-DDT)	50293		1.19 c	4.16	8	4.77 c	62.9	710	50 I	9.8 LB	1,000 L		1.19	1		4.77	7	< 12 E	
DDT+DDE+DDD (sum)	na		7	5.28	7	4,450	572	120	50 I	10	4,000		3.89	1.58		51.7	46.1	11 B	
Diazinon	333415																		1.9
Dibenz[ah]anthracene	53703	10	6.22 c	33	60	135 c		1,300	100 M			19	6.22	63.4	113	135	260	230 OM	
Dibenzofuran	132649								5,100 H									110 E	2,000

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Dichloroaniline, 2,4-	554007									< 5	< 50,000 S								
Dichloroaniline, 3,4-	95761									< 5	< 50,000 S								
Dichloroaniline, 3,4-	95761									< 5	< 50,000 S								
Dichlorobenzene, 1,2-	95501									< 30	17,000 LB							13 N	340
Dichlorobenzene, 1,3-	541731									< 30	24,000 LB								1700
Dichlorobenzene, 1,4-	106467									< 30	18,000 LB							110 IM	350
Dichlorobenzenes	25321226									< 30	19,000 LB								
Dichloroethane, 1,1-	75343									20	15,000								
Dichloroethane, 1,2-	107062									20	4,000								
Dichloroethene, 1,1- (vinylidene chloride)	75354									100	300								
Dichloroethene, 1,2- (cis or trans)	540590									200	1,000								
Dichlorophenol, 2,4-	120832									< 10	8,400 LB							0.2083	
Dichlorophenol, 2,6-	87650									< 10	57,000 LB								
Dichlorophenol, 3,4-	95772									< 10	57,000 LB								
Dichlorophenol, 3,5-	591355									< 10	5,400 LB								
Dichlorophenols (sum)	na									< 10	22,000 LB								
Dichloropropane, 1,2- (propylene dichloride)	78875									< 2	< 2,000								
Dieldrin ‡	60571		2.85	1.9	2	6.67	61.8	910	300 I	0.5	1,900 LB	0.83	0.72	0.02	2.9	4.3	8	1.9 E	
Diethyl phthalate	84662									530 L	53,000 L							6 BL	630
Diethylene-glycol	111466										270,000 S								
Dihydroxybenzenes, sum	na									62 LB	8,000 LB								
Di-iso-butyl phthalate	84695									92 LB	17,000 LB								
Dimethyl phthalate	131113									1,000 LB	84,000 LB							6 B	
Dimethylnaphthalene, 2,6-	581420											25			133				
Dimethylphenol, 2,4-	105679																	18 N	
Di-n-butyl phthalate	84742								110 H	7,000 LB	36,000 LB							58 BL	11,000
Di-n-octyl phthalate	117840									< 100	< 60,000							61 BL	
Dodecylbenzene	25155300										1,000,000 S								
Endosulfan (a or b)	115297									0.01	4,000								2.9 α 14 β

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Endosulfan II	33213659																		
Endrin	72208		2.67	2.22	3	62.4	207	1,300	500 I	0.04	95 L								
Ethyl acetate	141786										75,000 S								
Ethyl acetate	141786										75,000 S								
Ethyl benzene	100414									30	50,000							4 EL	3,600
Ethylene glycol	107211										100,000 S								
Fluoranthene	206440	31.46	111	423	750	2,355	2,230	10,200	1,500 M	1,000 LB	260,000	119	113	600	1,034	1,494	5,100	1,300 E	
Fluorene	86737	10	21.2 c	77.4	190	144 c	536	1,600	300 M			19	21.2	19	114	144	540	120 E	540
Formaldehyde	50000										100 S								
Guthion (Azinphos-methyl)	865000									0.005	2,000 S								
Heptachlor	76448								10 I	0.7	4,000							0.3 B	
Heptachlorepoxide	1024573		0.6	2.47	5	2.74	16	50	30 I	0.0002	4,000	0.6 c				2.74 c			
Hexachlorobenzene	118741				20			240	100 I	1.4 LB	2,000 LB							6 B	
Hexachlorobutadiene (HCBD)	87683																	1.3 E	
Hexachlorocyclohexane (BHC)	608731				3			120	100 I										
Hexachloroethane	67721																	73 BL	1,000
Hydroquinone (p-dihydroxybenzene)	123319									50	43,000 LB								
Indeno[1,2,3-cd]pyrene	193395	17.32			200			3,200	330 M	31 LB	1,900 LB	68			488			600 M	
Linar alkylbenzene sulfonates (LAS)	na												<12,800 €			>62,000 €			
Malathion	121755																		0.67
Maneb	12427382									2	22,000 L								
Methanol	67561										30,000 S								
Methoxychlor	72435																		19
Methyl ethyl ketone (MEK; 2-Butanone)	78933										35,000 S								
Methyl naphthalene, 2-	91576											21	20.2	70	128	201	670	64 E	
Methylene chloride (Dichloromethane, DCM)	75092									18 LB	3,900 L								
Methylnaphthalene, 1-	90120											21			94				
Methylphenanthrene, 1-	832699											18			112				
Methyl-tert-butyl ether (MTBE)	1634044										100,000 S								
Mirex	2385855				7			1,300	800 I										

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Monochloroaniline (3 isomers)	na									5	50,000								
Monochlorobenzenes	108907									< 30	15,000 LB								820
Monochloronaphthalenes	na									120 LB	10,000								
Monochlorophenols (sum)	na									< 10	5,400 L								
Naphthalene	91203	14.65	34.6 c	176		391 c	561		600 I	120 LB	17,000 LB	30	34.6	160	217	391	2,100	230 E	480
Nitrobenzene	98953																	21 N	
Nitrosodiphenylamine, N-	86306																	28 I	
Nonylphenol	25154523		1,400 c										1,000 c						
PAHs, Low MW	na	76.42							5,300 M	< 1,000	< 40,000		312	552		1,442	3,160	1,200 E	
PAHs, High MW	na	193							6,500 M	< 1,000	< 40,000		655	1,700		6,676	9,600	7,900 E	
PAHs, Total	na	264.1		1,610	4,000		22,800*	100,000*	12,000 M	1,000	40,000		1,684	4,022		16,770	44,792		
PCB 105	32598144									1.5 LB	< 1,000								
PCB 126	57465288									0.0025 LB	920 LB								
PCB 77	32598131									0.42 LB	< 1,00								
PCB-Aroclor 1254	na		60 c		60	340 c		340					63.3 c			709 c			
PCBs (sum)	1336363	31.62	34.1	59.8	70	277	676	5,300	26 M	0.3 LB	1,000	35	21.6	22.7	368	189	180	130 M	
Pentachloroaniline	527208										10,000 S								
Pentachlorobenzene	608935									15 LB	16,000 LB								690
Pentachlorophenol [PCP: at ph 7.8‡]	87865									< 10	8,000 LB							17 B	
Perylene	198550											74			453				
Phenanthrene	85018	18.73	41.9	204	560	515	1,170	9,500	800 I	3,300 LB	31,00 LB	68	86.7	240	455	544	1500	660 E	
Phenol	108952								48 † H	50	14,000 LB							130 E	
Phthalates (sum)	na									100	60,000								
Propanol, 2- (Isopropanol)	67630										220,000 S								
Pyrene	129000	44.27	53	195	490	875	1,520	8,500	1,000 i			125	153	665	932	1,398	2,600	2,400 E	
Pyridine	110861									100	500								
Resorcinol (m-dihydroxybenzene)	108463									34 LB	4,600 LB								
Styrene (Vinyl benzene)	100425									200 LB	86,000 LB								
Tetrachloroaniline, 2,3,5,6-	3481207										< 30,000 S								
Tetrachlorobenzene, 1,2,3,4-	634662									160 L	16,000 L								
Tetrachlorobenzene, 1,2,3,5-	634902									6.5 L	650 L								

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Tetrachlorobenzene, 1,2,4,5-	95943									10 L	1,000 L								
Tetrachlorobenzenes	na									22 L	2,200 L								
Tetrachloroethylene (Tetrachloroethene; PCE; PER)	127184									2	4,000							57 I	530
Tetrachlorophenol, 2,3,4,5-	4901513									< 10	< 10,000								
Tetrachlorophenol, 2,3,4,6-	58902									< 10	< 10,000								
Tetrachlorophenols (sum)	25167833									< 10	< 10,000								
Tetrahydrofuran	109999									100	2,000								
Tetrahydrothiophene	110010									100	8,800 LB								
Toluene	108883									10	47,000 L								670
Toxaphene	8001352		0.1 c										0.1 c						28
Tributyltinoxide	56359									< 10	< 2,500								
Trichloroaniline (multiple isomers)	na										10,000 S								
Trichloroaniline, 2,4,5-	636306										< 10,000 S								
Trichlorobenzene, 1,2,3-	87616									< 11 L	5,000 L								
Trichlorobenzene, 1,2,4-	120821									11 LB	5,100 LB							> 4.8 E	9,200
Trichlorobenzenes	12002481									38 L	11,000 L								
Trichloroethane, 1,1,1-	71556									70	15,000								170
Trichloroethane, 1,1,2-	79005									400	10,000								
Trichloroethene (TCE)	na									7.8 L	2,500 L							41 N	1,600
Trichlorophenol, 2,3,5-	na									< 10	4,500 L								
Trichlorophenol, 2,4,5-	95954									< 10	22,000 LB							3 I	
Trichlorophenol, 2,4,6-	88062									< 10	110,000 LB							6 I	
Triclorophenols, (sum)	na									< 10	22,000 L								
Vinyl chloride	75014									10	100								
Xylene	1330207									130 LB	17,000 LB							4 BL	
Xylene, m-	108383									110 LB	18,000 LB								25
Xylene, o-	95476									89 LB	9,300LB								

4: Entry is lowest, reliable value among AET tests, on 1% TOC basis: I - Infaunal community impact ; M - Microtox bioassay ; H - *Hyalella azteca* bioassay ; † - value on dry weight basis.
5: S – Serious Contamination; L – Environmental Risk Limit for soil; LB – Environmental Risk Limit for soil or bedded sediment
8: Entry is lowest value among AET tests: I - Infaunal community impact ; A - Amphipod ; B - Bivalve ; M- Microtox bioassay ; O - Oyster larvae ; E - Echinoderm larvae ; L - Larval$_{max}$; or , N - *Neanthes* bioassay.



Screening Quick Reference Tables for Organics – Sediment

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Sources

1 – Assessment & Remediation of Contaminated Sediments (ARCS) Program, Sept 1996. EPA 905-R96-008.

2 – MacDonald et al, 2000. Arch ET&C 39(1):20-
C – Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Summary Tables Update 2002, www.ccme.ca/publications/cegg_rcqe.html

3 – Persuad 1993. Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario. Thompson et al., 2005. Enval Monitor & Assessment 110:71-

4 – Buchman 1999. NOAA HAZMAT Report 99-1.

5 – Entry is lower of current VROM Environmental Quality standards or the updated RIVM Environmental Risk Limits. Risk limits are typically divided by 100 to derive the Target value; this computation has not been done here.
Dutch Target/Intervention: E.M.J. Verbruggen, R. Posthumus and A.P. van Wezel, 2001. Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water: updated proposal for first series of compounds. Nat. Inst. Public Health and the Env., and subsequent updates as published elsewhere.
Min. Housing, Spatial Plan. And the Env., 2000. Annexes Circular on target values and intervention values for soil remediations.

6 – Field et al., 2002. ET&C 21:1993-

7 – MacDonald et al., 1996. Ecotox. 5(4):253-
C – Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Summary Tables Update 2002, www.ccme.ca/publications/cegg_rcqe.html
€ - DelValls et al., 1999. Ecotox. & Env Rest 2(1):34-

8 – Wash Dept Ecol Publ 95-308, 1995 and 97-323a, 1997
Gries & Waldrow Puget Sound Dredged Disposal Analysis Rept 1996. http://www.ecy.wa.gov/biblio/wac173204.html
plus unpublished information.

9 – EcoUpdate EcoTox Thresholds, http://www.epa.gov/oswer/riskassessment/

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
2,3,7,8-TCDD (dioxin TEQs)	1746016		0.001 ng/L S	0.00003	<0.01 *	<0.00001 *				0.000199		
2,4,5-Trichlorphenoxyacetic acid (2,4,5-T)	93765			9 W		36 NZ				596		
2,4-Dichlorophenoxyacetic acid (2,4-D)	94757			70		4.0 CA				27.2		
Acenaphthene	83329				1,700 *	5.8 CA	970 *	40 Eco		682,000	20,000	
Acenaphthylene	208968					4,840 V	300 *C			682,000		
Acetone	67641				28,000 T	1,500 T				2,500		
Acetonitrile	75058					160 NZ				1,370		
Acetophenone	98862									300,000		
Acetylaminofluorene, 2-	53963									596		
Acridine	260946					4.4 CA						
Acrolein	107028				68 *	0.01 NZ	55 *	0.1 NZ		5,270		
Acrylonitrile	107131	0.08	5 S		7,550 *	2,600 *				23.9		1,000,000 M 0.007 D
Alcohol ethoxylated surfactants (AE)	na					140 NZ						
Alcohol ethoxyolated sulfate (AES)	na					650 NZ						
Aldicarb	116063			9 C		1 CA		0.15 CA				
Aldrin	309002	0.009 ng/L	< 0.1		1.5 (½)	0.017 V	0.65 (½)				3.32 v	0.06 D
Aldrin+Dieldrin+Endrin	na		0.1	<0.03 W								5 D
Allyl chloride	107051									13.4		
Aminobiphenyl, 4-	92671									3.05		
Aminomethylphosphonic acid (AMPA)	1066519	0.797 L										
Amitrole	61825					22 NZ						
Aniline	62533					2.2 CA				56.8		
Anthracene	120127	0.0007	5		13 T	0.73 T 0.012 CA	300 *C			1.48E6		
Aramite	140578									16,600		
Atrazine	1912249	29 ng/L	76 L	3		1.8 CA		10 BC				0.2 D
Benz[a]anthracene	56553	0.0001	0.5		0.49 T	0.027 T	300 *C			5,210		
Benzene	71432	0.2	30	5	2,300 T	46 Eco	5,100 *	110 CA		255		10 D
Benzidine	92875				70 T	3.9 T						
Benzo(ghi)perylene	191242	0.0003	0.05			7.64 V	300 *C			119,000		
Benzo[a]pyrene	50328	0.0005	0.05	0.2	0.24 T	0.014 T Eco	300 *C			1,520		

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		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Benzo[b]fluoranthene	205992					9.07 V	300 *C			59,800		
Benzo[k]fluoranthene	207089	0.0004	0.05				300 *C			148,000		
Benzoic acid	65850				740 T	42 T						
Benzyl alcohol	100516				150 T	8.6 T				65,800		
BHC, alpha (α-HCH)	319846	33 ng/L	<1		39 T	2.2 T				99.4		3 D
BHC, beta (β-HCH)	319857	8 ng/L	<1		39 T	2.2 T 0.495 V					3.98 v	9 D
BHC, delta δ-HCH)	319868	< 0.05	<1		39 T	2.2 T				9,940		< 10 D
BHC, gamma- (γ-HCH; Lindane)	58899	9 ng/L	<1	0.2	0.95	0.08	0.08 (½)				5 v	0.05 D
BHC (sum)	na	0.05	1		< 0.95	< 0.08	< 0.08					10 D
Biphenyl	92524					14 T Eco					60,000	
Bis(2-chloroethoxy) methane	111911				11,000 *C		12,000 *C	6,400 *C		302		
Bis(2-chloroethyl) ether	111444					1,900 V				23,700		
Bis(2-ethylhexyl)phthalate (DEHP)	117817	1.9 ng/L L	< 5	6	400 p	32 Eco 16 CA 0.3 V	400 p	360 p		925		< 100 D
Bis-2-chloro-1-methylethylether	108601									19,900		
Bromocil	314409					5 CA						
Bromodichloromethane (Dichlorobromomethane)	75274			60 W	11,000 *C		12,000 *C	6,400 *C		540		
Bromoform (Tribromomethane)	75252		630		2,300 T	320 T Eco				15,900		
Bromoxynil	1689845			5 C		5 CA						
Butanol	35296721		5,600 S									
Butyl acetate, 1- or 2-	na		6,300 S									
Butyl benzyl phthalate	85687	2.9 ng/L L	< 5		940 *C	19 T Eco	2,944 *C	3.4 *C		239		< 100 D
Captan	133062					1.3 CA						
Carbaryl	63252	2 ng/L	41 L	90 C		0.2 CA		0.32 CA				
Carbofuran	1563662	9 ng/L	6.5 L	40		1.8 CA		0.06 NZ				
Carbon disulfide	75150				17 T	0.92 T				94.1		
Carbon tetrachloride (Tetrachloromethane;Tetra)	56235	0.01	10	5	180 T	9.8 T	50,000 *	5,000 x 0.1		2,980		1,000,000 M 400 D
Catechol (o-Dihydroxybenzene)	120809	0.2	630 L									50 D

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Chlordane	57749	0.02 ng/L	0.2	2	1.2 (½)	0.00215 (½)	0.045 (½)	0.002 (½)			224 v	0.03 D
Chlordane (alpha)	5103719	< 0.02 ng/L	< 0.2								< 224 v	< 0.03 D
Chlordane (gamma)	5103742	< 0.02 ng/L	< 0.2								< 224 v	< 0.03 D
Chlorfenvinphos	470906					0.1 EU		0.1 EU				
Chloroacetamide	79072								2,000			5 D
Chloroaniline	27134265		30									< 5 D
Chloroaniline, 3-	108429		< 30						30,000		20,000	< 5 D
Chloroaniline, 4-	106478		< 30		250 *C	50 *C	160 *C	129 *C		1,100		< 30 D
Chlorobenzenes (sum)	na	< 7	< 180	100		130 Eco <47 V			< 40,000	< 13,100		30 D
Chlorobenzilate	510156									5,050		20 D
Chloroform (trichloromethane)	67663	6	400	200 W	490 T	1.8 CA				1,190		
Chloro, 4- 2-methyl phenol	1570645		< 350 S									
Chloro, 4- 3-methyl phenol	59507		< 350 S							7,950		
Chloro, 4- methyl phenols	na		350 S							< 7,950		
Chloro, 4- 2-methylphenoxy acetic acid (MCPA)	94746	0.02	50	2 W		2.6 CA		4.2 CA				0.05 D
Chloronaphthalene, 1-	90131	3.7 ng/L L	< 6									
Chloronaphthalene, 2-	91587	0.016 L	< 6		1,600 * C	0.396 V	7.5 * C			12.2		
Chlorophenol, 2-	95578	< 0.3	< 100		4,380 *	490 NZ 24 V				243		< 10 D
Chlorophenol, 3-	108430	< 0.3	< 100						10,000		7,000	< 10 D
Chlorophenol, 4-	106489	< 0.3	< 100			220 NZ						< 10 D
Chlorophenols (sum)	na	0.3	100			< 24 V			< 10,000	< 243	< 7,000	< 10 D
Chloroprene	126998									2.9		
Chlorothalonil	1897456			200 BC		0.18 CA		0.36 CA				
Chlorpyrifos	2921882			30 W	0.083	0.041	0.011	0.0056				
Chrysene	218019	0.003	0.2				300 *C			4,730		
Cresol [m-] (3-Methyl phenol)	108394	< 0.2	< 200							3,490		< 50 D
Cresol [o-] (2-Methyl phenol)	95487	< 0.2	<200		230 T	13 T				40,400		< 50 D
Cresol [p-] (4-Methyl phenol)	106445	< 0.2	< 200							163,000		< 50 D
Cresols, sum	1319773	0.2	200		< 230 T	< 13 T				< 3,490		50 D
Cyclohexanone	108941	0.5	15,000									100 D

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
DDD, 4,4- (p,p-DDD, TDE)	72548	<0.004 ng/L	< 0.01	< 1 W	0.19 T	0.011 T	3.6 *	0.36 x 0.1		758		< 10 D
DDE, 4,4- (p,p-DDE)	72559	<0.004 ng/L	< 0.01	< 1 W	1,050 *	105 x 0.1	14 *	1.4 x 0.1		596		< 10 D
DDT, 4,4- (p,p-DDT)	50293	<0.004 ng/L	< 0.01	< 1 W	0.55 (½)	0.0005 (½)	0.065 (½)	0.0005 (½)		3.5		< 10 D
DDT+DDE+DDD (sum)	na	0.004 ng/L	0.01	1 W	<0.55 (½)	<0.0005 (½)	<0.065 (½)	<0.0005 (½)		21 EPA		93 A 10 D
Decane	124185				880 T	49 T						
Deltamethrin	52918635					0.0004 CA						
Demeton	8065483					0.1		0.1				
Diallate	2303164									452		
Diazinon	333415			20 C	0.17	0.17	0.82	0.82				
Dibenz[ah]anthracene	53703						300 *C			18,400		
Dibenzofuran	132649				66 T	3.7 T						
Dibromo, 1,2- 3-chloropropane (DBCP)	96128			0.2						35.2		
Dibromochloromethane (Chlorodibromomethane)	124481			100 W	11,000 *C		12,000 *C	6,400 *C		2,050		
Dibromoethane, 1,2-	106934			0.4 W						1,230		
Dicambia	1918009			120 C		10 CA						
Dichloro, 1,4- 2-butene (cis)	1476115											1,000,000 M
Dichloro, 1,4- 2-butene (trans)	110576											1,000,000 M
Dichloroaniline, 2,4-	554007		< 100 S			7 NZ			100,000			< 5 D
Dichloroaniline, 3,4-	95761		< 100 S			3 NZ		150 NZ	20,000			< 5 D
Dichlorobenzene, 1,2-	95501	< 3	< 50	600	260 T	0.7 CA	< 1,970 *S	42 CA		2,960		< 30 D
Dichlorobenzene, 1,3-	541731	< 3	< 50		630 T	71 T Eco 38 V	< 1,970 *S			37,700		< 30 D
Dichlorobenzene, 1,4-	106467	< 3	< 50	75	180 T	15 T Eco 60 NZ 9.4 V	< 1,970 *S	129 *C	20,000	546		< 30 D
Dichlorobenzenes	25321226	3	50	< 75	< 180 T	< 0.7 CA	1,970 *S		< 20,000	< 548		< 30 D
Dichlorobenzidine, 3,3-	91941					4.5 V				646		
Dichlorodifluoromethane	75718									39,500		
Dichloroethane, 1,1-	75343	7	900		830 T	47 T Eco				20,100		20 D
Dichloroethane, 1,2-	107062	7	400	5	8,800 T	100 CA	113,000 *	11,300 x 0.1		21,200		20 D

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Dichloroethene, 1,1- (vinylidene chloride)	75354	0.01	10	7	450 T	25 T	224,000 *S			8,280		100 D
Dichloroethene, 1,2- (cis or trans)	540590	0.01	20	70 cis	1,100 T	590 T	224,000 *S					200 D
Dichloroethene, 1,2- (trans)	156605			100	11,600 *S	1,160 x 0.1	224,000 *S			784		
Dichlorophenol, 2,4-	120832	< 0.2	< 30	900 C	2,020 *	160 NZ 11 V				87,500		< 10 D
Dichlorophenol, 2,6-	87650	< 0.2	< 30			< 0.2 CA				1,170		< 10 D
Dichlorophenol, 3,4-	95772	< 0.2	< 30			< 0.2 CA			20,000		20,000	< 10 D
Dichlorophenol, 3,5-	591355	< 0.2	< 30			< 0.2 CA						< 10 D
Dichlorophenols (sum)	na	0.2	30	< 900 C	<2,020 *	0.2 CA			< 20,000	< 1,170	< 20,000	< 10 D
Dichloropropane, 1,2- (propylene dichloride)	78875	< 0.08	< 80	5	23,000 *S	5,700 *S	10,300 *S	3,040 *S	700,000	32,700		< 2 D
Dichloropropene, 1,3-	542756			20 W	0.99 T	0.055 T	790 *S					
Dichloropropene, 1,3- (cis)	10061015			< 20 W	< 0.99 T	< 0.055 T				398		
Dichloropropene, 1,3- (trans)	10061026			< 20 W	< 0.99 T	< 0.055 T				398		
Diclofop-methyl	51338273			9 C		6.1 CA						
Dicofol	115322					0.5 NZ		0.1 NZ				
Didecyl dimethyl ammonium chloride (DDAC)	7173515					1.5 CA						
Dieldrin ‡	60571	0.1 ng/L	< 0.1		0.24	0.056	0.355 (½)	0.00095 (½)		2.38		22 A
Diethyl phthalate	84662	< 0.5	< 5		1,800 T	210 T 110 V	2,944 *C	3.4 *C		24,800	100,000	< 100 D
Diethylene-glycol	111466		13,000 S									
Dihydroxybenzenes, sum	na	0.24 L										
Di-iso-butyl phthalate	84695	< 0.5	< 5									< 100 D
Dimethoate	60515			6 W		6.2 CA 0.15 NZ				218		
Dimethyl aminoazobenzene [p-]	60117									40		
Dimethyl benz(a)anthracene, 7,12-	57976									16,300		
Dimethyl benzidine, 3,3-	119937									104		
Dimethyl naphthalene, 2,6-	581420											
Dimethyl phenethylamine [alpha,alpha]	122098									300		
Dimethyl phenol, 2,4-	105679				2,120 *	100 V					10 V	
Dimethyl phthalate	131113	< 0.5	< 5		940 *C	3 *C	2,944 *C	3.4 *C	200,000	734,000		< 100 D

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		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]	Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
Di-n-butyl phthalate	84742	< 0.5	< 5		190 T	19 CA 9.7 V	2,944 *C	3.4 *C		150	200,000	< 100 D
Dinitrobenzene, 1,3-	99650									655		
Dinitrophenol, 2,4-	51285				230 *C	45 NZ 19 V	4,850 *C			60.9		
Dinitrotoluene, 2,4-	121142				330 *	65 NZ 44 V	590 * S	370 *S		1,280		
Dinitrotoluene, 2,6-	606202									32.8		
Di-n-octyl phthalate	117840	< 0.5	< 5		940 *C	3 *C	2,944 *C	3.4 *C		709,000		< 100 D
Dinoseb	88857			7		0.05 CA				21.8		
Dioxane, 1,4-	123911									2,050		
Dioxins (sum of PCDDs)	na		0.001 ng/L S							0.000199		
Diphenlyhydrazine 1,2-	122667				270 *	27 x 0.1						
Diphenylamine	122394									1,010		
Diquat	85007			20		1.4 NZ						
Disulfoton	298044									19.9		
Diuron	330541			150 C		0.1EU		0.1EU				
Dodecylbenzene	25155300		0.02 S									
Endosulfan (α or β: I or II)	115297	0.2 ng/L	5		0.11 (½)	0.028 (½)	0.017 (½)	0.00435 (½)		119		0.01 D
Endosulfan sulfate	1031078					2.22 V				35.8		
Endrin	72208	0.04 ng/L	< 0.1	2	0.086	0.036	0.0185 (½)	0.00115 (½)		10.1		0.04 D
Endrin aldehyde	7421934					0.15 V				10.5		
Esfenvalerate	66230044					0.001 NZ						
Ethanol	64175					1,400 NZ						
Ethyl acetate	141786		15,000 S									
Ethyl benzene	100414	4	150	700	130 T	7.3 T 14 V	430 *	25 CA		5,160		30 D
Ethyl methacrylate	97632									30,000		
Ethylene glycol	107211		5,500 S			192,000 CA						
Famphur	52857									49.7		
Fenitrothion	122145					0.2 NZ						
Fluoranthene	206440	0.003	1		3,980 *	0.04 CA	40 *	11 Eco		122,000		
Fluorene	86737				70 T	3.9 T Eco	300 *C		30,000	122,000		

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Formaldehyde	50000		50 S	900 W								
Furan	110009										600,000	
Glyphosate	1071836			280 C		65 CA						
Guthion (azinphos-methyl)	865000	0.1 ng/L	2 S	20 C		0.01 0.02 NZ		0.01				0.005 D
Heptachlor	76448	0.005 ng/L	0.3	0.4	0.26 (½)	0.0019 (½)	0.0265 (½)	0.0018 (½)		5.98		0.7 D
Heptachlor epoxide	1024573	0.005 ng/L	3	0.2	0.26 (½)	0.0019 (½)	0.0265 (½)	0.0018 (½)		152		0.0002 D
Hexachlorobenzene	118741	2.1E-7 L	0.5	1	6 p	3.68 p 0.0003 V	160 *C	129 *C		199		1,000,000 M
Hexachlorobutadiene (HCBD)	87683			0.6 W	90 *	1.3 CA 0.053 V	32 *	3.2 x 0.1		39.8		
Hexachlorocyclohexane (BHC)	608731				100 *	10 x 0.1	0.34 *	0.034 x 0.1				
Hexachlorocyclopentadiene	77474			50	7 *	5.2 *	7 *	0.7 x 0.1		755	10,000	
Hexachloroethane	67721				210 T	12 T Eco 8 V	940 *	94 x 0.1		596		
Hexachlorophene	70304									199		
Hexane	110543				10 T	0.58 T						
Hexanone, 2- (methyl butyl ketone)	591786				1,800 T	99 T				12,600		
Hydroquinone (p-dihydroxybenzene)	123319	0.2	800									50 D
Indeno[1,2,3-cd]pyrene	193395	0.0004	0.05			4.31 V	300 *C			109,000		
Iodo, 3- 2-propynl butyl carbamate (IPBC)	55406536					1.9 CA						
Isodrin	465736										3.32 v	
Isophorone	78591				117,000 *	1,170 x 0.1 920 V	12,900 *	1,290 x 0.1		139,000		
Isoproturon	34123596			9 W		0.1 EU		0.1 EU				
Isosafrole	120581									9,940		
Kepone	143500									32.7		
Linar alkylbenzene sulfonates (LAS)	na					280 NZ						
Linuron	335502					7.0 CA						
Malathion	121755			190 C		0.1		0.1				
Maneb	12427382	0.05 ng/L	0.1									2 D
Methacrylonitrile	126987									57		
Methanol	67561		24,000 S									

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		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Methanol	67561		24,000 S									
Methapyrilene	91805									2,780		
Methomyl	16752775					3.5 NZ						
Methoxychlor	72435			40		0.03		0.03		19.9		
Methyl bromide	74839					16 V				235		
Methyl chloride	74873									10,400		
Methyl cholanthrene, 3-	56495									77.9		
Methyl, 2- 4,6-dinitrophenol	534521									144		
Methyl ethyl ketone (MEK; 2-Butanone)	78933		6,000 S		240,000 T	14,000 T				89,600		
Methyl iodide	74884									1,230		
Methyl methacrylate	80626									984,000		
Methyl methanesulfanate	66273									315		
Methyl naphthalene, 1-	90120				37 T	2.1 T						
Methyl naphthalene, 2-	91576					330 V	300 *C			3,240		
Methyl parathion	298000									0.292		
Methyl, 4- 2-pentanone	108101				2,200 T	170 T				443,000		
Methyl-tert-butyl ether (MTBE)	1634044		9,200 S			10,000 CA		5,000 CA				
Methylene bromide (Dibromomethane)	74953				11,000 *C		12,000 *C	6,400 *C		65,000		
Methylene chloride (Dichloromethane, DCM)	75092	0.01	1,000	5	26,000 T	2,200 T 98.1 CA	12,000 *C	6,400 *C		4,050		400 D
Metolachlor	51218452			10 W		7.8 CA						
Metribuzin	21087649			80 C		1 CA						
Mineral oil (Operationally defined)	8012951	50	600									50,000 D
Mirex	2385855					0.001		0.001				
Molinate	2212671			6 W		3.4 NZ						
Monochloroaniline (3 isomers)	na		30									5 D
Monochlorobenzenes	108907	7	180	100	1,100 T	1.3 CA	160 *C	25 CA	40,000	13,100		< 30 D
Monochloronaphthalenes		7.7 [ng]/L L	6									120 L
Monochlorophenols (sum)	na	0.3	100			7 CA						< 10 D
Naphthalene	91203	0.01	70		190 T	1.1 CA	2,350 *	1.4 CA		99.4		
Naphthoquinone, 1,4-	130154									1,670		

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		Dutch [1]		MCL [2]	Fresh		Marine		Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Naphthylamine, 1-	134327									9,340		
Naphthylamine, 2-	91598									3,030		
Nitroaniline [m-]	99092									3,160		
Nitroaniline [p-]	100016									21,900		
Nitroaniline, 2-	88744									74,100		
Nitrobenzene	98953				27,000 *	550 NZ 220 V	6,680 *	668 x 0.1	40,000	1,310		1,000,000 M
Nitro-o-toluidine, 5-	99558									8,730		
Nitrophenol, 2-	88755									1,600		
Nitrophenol, 4-	100027				1,200 T	300 T 60 V	4,850 *C		7,000	5,120		
Nitroquinoline, 4- 1-oxide	56575									122		
Nitrosodiethylamine, N-	55185					768 V				69.3		
Nitrosodimethylamine, N-	62759									0.0321		
Nitroso-di-n-butylamine, N-	924163									267		
Nitroso-di-n-propylamine, N-	621647									544		
Nitrosodiphenylamine, N-	86306				3,800 T	210 T	3,300,000*C		20,000	545		
Nitrosomethylethylamine, N-	10595956									1.66		
Nitrosomorpholine, N-	59892									70.6		
Nitrosopiperidine, N-	100754									6.65		
Nitrosopyrrolidine, N-	930552									12.6		
Nonylphenol	25154523				28	6.6	7	1.7				
O,O-diethyl O-2-pyrazinylphosphorothioate	297972									799,000		
Octanone, 2-	111137				150 T	8.3 T						
PAHs, High MW	na						300 *C		29,000 EPA	100,000 EPA		< 1,000 D
PAHs, Low MW	na						300 *C		18,000 EPA	1,100 EPA		< 1,000 D
PAHs, Total	na						300 *C					1,000 D
Paraquat	4685147					0.5 NZ						
Parathion	56382			50 C	0.065	0.013			0.34 V			
PCBs (sum)	1336363	0.01	0.01	0.5	0.6 T 0.03 NZ	0.014	0.033 T	0.03		0.332	40,000	< 20 D
Pentachloroaniline	527208		1 S						100,000			

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		Dutch [1]		MCL [2]	Fresh		Marine					
		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]	Invertebrates [4]	Mammals [5]	Plants [6]	Other [7]
Pentachlorobenzene	608935	0.003	1		8.4 T	0.47 T 0.019 V	160 *C	129 *C	20,000	497		< 30 D
Pentachloroethane	76017				7,240 *	1,100 *	390 *	281 *		10,700		
Pentachloronitrobenzene	82688									7,090		
Pentachlorophenol [PCP: at pH 7.8]	87865	0.04	3	1.0	19 ph	15 Ph	13	7.9	6,000	119	3,000	2,100 A
Pentanol, 1-	71410				2,000 T	110 T						
Permethrin	52645531					0.004 CA		0.001 CA				
Phenacetin	62442									11,700		
Phenanthrene	85018	0.003	5		30 p	6.3 p Eco 3.6 V	7.7 p	4.6 p		45,700		
Phenol	108952	0.2	2,000		10,200 *	320 NZ 180 V	5,800 *	400 NZ	30,000	120,000	70,000	1,000,000 M 500 D
Phenylenediamine [p-]	106503									6,160		
Phorate	298022			2 C						0.496		
Phthalates (sum)	na	0.5	5									100 D
Picloram	1918021			500		29 CA						
Picoline, 2-	109068									9,900		
Polychlorinated dibenzofurans	51207319									0.0386		
Pronamide	23950585										13.6 v	
Propanol, 2- (Isopropanol)	67630		31,000 S		130 T	7.5 T						
Propionitrile	107120									49.8		
Propylene glycol	57556					500,000 CA						
Pyrene	129000					0.025 CA	300 *C			78,500		
Pyridine	110861	0.5	30							1,030		100 D
Quinoline	91225					3.4 CA						
Resorcinol (m-dihydroxybenzene)	108463	0.2	600									50 D
Safrole	94597									404		
Silvex (2,4,5-TP)	93721			50							109 v	
Simazine	122349			4		10 CA 3.2 NZ		1 EU				
Styrene (Vinyl benzene)	100425	6	300	100		72 CA 32 V				4,690	300,000	300 D

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		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Tebuthiuron	34014181			490 BC		1.6 CA 2.2 NZ						
Temephos	3383968					0.05 NZ		0.05 NZ				
Tetrachloroaniline, 2,3,5,6-	3481207		< 10 S						20,000		20,000	
Tetrachlorobenzene, 1,2,3,4-	634662	< 0.01	< 2.5		250 *C	1.8 CA	160 *C	129 *C	10,000			< 30 D
Tetrachlorobenzene, 1,2,3,5-	634902	< 0.01	< 2.5		250 *C		160 *C	129 *C				< 30 D
Tetrachlorobenzene, 1,2,4,5-	95943	< 0.01	< 2.5		250 *C	50 *C 3 V	160 *C	129 *C		2,020		< 30 D
Tetrachlorobenzenes	na	0.01	2.5		250 *C	< 3 V	160 *C	129 *C	< 10,000	< 2,020		< 30 D
Tetrachloroethane, 1,1,1,2-	630206									225,000		
Tetrachloroethane, 1,1,2,2-	79345				2,100 T	111 CA	9,020 *	902 x 0.1		127		
Tetrachloroethylene (Tetrachloroethene; PCE; PER)	127184	0.01	40	5	830 T	98 T 45 V	10,200 *	450 *		9,920		2 D
Tetrachlorophenol, 2,3,4,5-	4901513	< 0.01	< 10			< 1 CA			20,000			< 10 D
Tetrachlorophenol, 2,3,4,6-	58902	< 0.01	< 10	100 C		20 NZ	440 *	44 x 0.1		199		< 10 D
Tetrachlorophenols (sum)	25167833	0.01	10			1 CA			< 20,000	< 199		< 10 D
Tetraethyldithiopyrophosphate	3689245									596		
Tetrahydrofuran	109999	0.5	300									100 D
Tetrahydrothiophene	110010	0.5	5,000									100 D
Thiobencarb	28249776					2.8 NZ						
Thiram	137268					0.2 NZ		0.01 NZ				
Toluene	108883	7	1,000	1,000	120 T	9.8 T 2 CA	6,300 *	215 CA		5,450	200,000	10 D
Toluidine [o-]	95534									2,970		
Toxaphene	8001352			3	0.73	0.0002	0.21	0.0002		119		
Triallate	2303175					0.24 CA						
Tributyltinoxide	56359	<0.05E-16 ng/L	< 0.7		0.46	0.072	0.42	0.0074				< 1 D
Trichloroaniline (multiple isomers)	na		10 S									
Trichloroaniline, 2,4,5-	636306		< 10 S						20,000		20,000	
Trichlorobenzene, 1,2,3-	87616	< 0.10	< 10			8.0 CA			20,000			< 30 D
Trichlorobenzene, 1,2,4-	120821	< 0.10	< 10	70	700 T	24 CA	160 *C	5.4 CA	20,000	11,100		< 30 D
Trichlorobenzenes	12002481	0.01	10	< 70	< 700 T	< 8 CA	160 *C	<5.4 CA	< 20,000	< 11,100		< 30 D

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		Target	Intervention		Acute [3]	Chronic [3]	Acute [3]	Chronic [3]				
Trichloroethane, 1,1,1-	71556	0.01	300	200	200 T	11 T	31,200 *	3,120 x 0.1		29,800		70 D
Trichloroethane, 1,1,2-	79005	0.01	130	5	5,200 T	1,200 T 500 V		1,900 NZ		28,600		400 D
Trichloroethene (TCE)		24	500	5		21 CA	2,000 *	200 x 0.1		12,400		100 D
Trichloroethene, 1,1,1-	71556	< 24	< 500	< 5	< 440 T	< 21 CA						< 100 D
Trichloroethene, 1,1,2-	79016	< 24	< 500	< 5	< 440 T	< 21 CA						< 100 D
Trichlorofluoromethane	75694				11,000 *C		12,000 *C	6,400 *C		16,400		
Trichlorophenol, 2,3,5-		< 0.03	< 10			< 18 CA						< 10 D
Trichlorophenol, 2,4,5-	95954	< 0.03	< 10		100 p	63 p	240 p	11 p	9,000	14,100	4,000	< 10 D
Trichlorophenol, 2,4,6-	88062	< 0.03	< 10	5 C		20 NZ 4.9 V			10,000	9,940		< 10 D
Triclorophenols, (sum)	na	0.03	10			18 CA			< 9,000	<9,940	< 4,000	< 10 D
Trichloropropane, 1,2,3-	96184									3,360		
Triethylphosphorothioate [O,O,O-]	126681									818		
Trifluralin	1582098			20 W		0.2 CA		0.1EU				
Trinitrobenzene, 1,3,5-	99354									376		
Trinitrotoluene, 2,4,6-	118967					140 NZ						
Vinyl acetate	108054				280 T	16 T				12,700		
Vinyl chloride	75014	0.01	5	2		930 V				646		10 D
Xylene, m-	108383	< 0.2	< 70		32 T	1.8 T Eco						< 100
Xylene, o-	95476	< 0.2	< 70			350 NZ						< 100
Xylene, p-		< 0.2	< 70									< 100
Xylenes	1330207	0.2	70	10,000	230 T	13 T					10,000 v	100 D

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Sources

1 – Entry is lower of current VROM Environmental Quality standards or the updated RIVM Environmental Risk Limits. Risk limits are typically divided by 100 to derive the Target value; this computation has been done here.
Dutch Target/Intervention: E.M.J. Verbruggen, R. Posthumus and A.P. van Wezel, 2001. Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water: updated proposal for first series of compounds. Nat. Inst. Public Health and the Env., and subsequent updates as published elsewhere.
Min. Housing, Spatial Plan. And the Env., 2000. Annexes Circular on target values and intervention values for soil remediations.

2 – Primary entry is the US EPA MCL value, followed by the lower of appropriate WHO, Canadian, or British Columbia guidelines.
Maximum Contaminant Levels (MCLs): http://www.epa.gov/safewater/index.html
W – World Health Organization's (WHO) Drinking water guidelines: http://www.who.int/water_sanitation_health/dwq/en/
C – Canadian Environmental Quality Guidelines for Community Water, Summary Table Update 2002: http://www.ccme.ca
BC – British Columbia Water Quality Guidelines (either working or recommended): http://www.env.gov.bc.ca/wat/wq/

3 – Primary entry is the US Ambient Water Quality Criteria, followed by the lowest of Tier II SAVs or available standards or guidelines.
Lowest Observable Effect Levels (LOELs) previously published by EPA are also included since these essentially were the basis for many state standards.
EPA Ambient water Quality Criteria (AWOC): http://www.epa.gov/waterscience/criteria/aqlife.html
T – Tier II Secondary Acute Value: http://www.esd.ornl.gov/programs/ecorisk/tools.html
Eco – EPA EcoUpdate, Ecotox Thresholds, EPA 540/F-95/038
CA – Canadian water Quality Guidelines: http://www.ec.gc.ca/CEQG-RCQE/English/Ceqg/Water/default.cfm
BC – British Columbia Water Quality Guidelines (either working or recommended): http://www.env.gov.bc.ca/wat/wq/
EU – European Union (EU) Environmental Quality Standards: COM(2006) 397 and 398 final.
V – US EPA Region V Ecological Screening Levels: http://www.epa.gov/reg5rcra/ca/edql.htm

4 – Toxicological Benchmarks for Effects on Earthworms: http://www.esd.ornl.gov/programs/ecorisk/tools.html
EPA – Eco-SSL for Invertebrates: http://www.epa.gov/ecotox/ecossl/
Region V Ecological Screening Level for Invertebrates: http://www.epa.gov/reg5rcra/ca/

5 – Entry is lower of either:
Region V Ecological Screening Level for shrew or vole: http://www.epa.gov/reg5rcra/ca/
EPA – Eco-SSL for Mammals: http://www.epa.gov/ecotox/ecossl/

6 – Toxicological Benchmarks for Effects on Terrestrial Plants: http://www.esd.ornl.gov/programs/ecorisk/tools.html
V – EPA Region V Ecological Screening Level for Plants: http://www.epa.gov/reg5rcra/ca/

7 – Entry is lower of either:
M – Toxicological Benchmarks for Effects on Microbes: http://www.esd.ornl.gov/programs/ecorisk/tools.html
A – Eco-SSL for Avian Receptors: http://www.epa.gov/ecotox/ecossl/
D – Entry is lower of current VROM Environmental Quality standards or the updated RIVM Environmental Risk Limits. See #1 above for sources.



Screening Quick Reference Table for PCB Composition

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Degree of Chlorination	A1221 Wt %	A1232 Wt %	A1016 Wt %	A1242 Wt %	A1248 Wt %	A1254 Wt %	A1260 Wt %	A1262 Wt %
Biphenyl	11.7 [a]	6.2 [a]						
∑1 Cl	65.5	31.3	Tr (#1, 3)	Tr (#1, 3)				
∑2 Cl	30.0	26.1	15.2	11.5	Tr (#7, 8)			
∑3 Cl	3.5	21.7	58.2	51.0	21.8	2.1		
∑4 Cl	Tr	15.0	26.5	29.0	60.2	14.3	Tr (#52, 70, 74)	Tr (#52, 70, 74)
∑5 Cl	Tr (#95)	5.8	Tr (#91, 95, 102)	8.5	17.1	53.2	8.2	3.5
∑6 Cl				Tr (#136, 138)	0.8	26.6	47.2	31.6
∑7 Cl					Tr	3.8	37.6	45.8
∑8 Cl						Tr (#202)	6.3	17.7
∑9 Cl							0.7	1.3
Total	99.1%	99.94%	99.95%	100%	99.93%	99.95%	100.01%	99.98%
Prominent congeners [b]	1 3 8 4 15 6	1 8 3 4 15 28	18 28 8 31 33 16	18 28 31 8 33 16	66 70 64 28 52 60	118 110 101 95 138 153	180 138 149 187 174 170	180 153187 149 174 203
Unique congener	#11 Tr					#137	#189 Tr	
Peak Range [c]	1-48	1-74	2-50	2-82	8-106	8-107	31.1-117	31.1-117
Ratio #118:203 [d]	Neither	No #203	Neither	No #203	73	370 - 1230	0.3 – 0.5	0.1
Ratio #31:118 [e]	No #118	4.3	No #118	8.5 - 9.2	2.1	0.01 – 0.04	0.1	No #31
Wt % of #153 [f]				0.1 - 0.14	Tr - 0.52	4.7-6.1	11.0 – 12.2	
Additional Information		~ 1:1 mix of 1221-1242	Distillation of 1242					

Notes

Commercial PCBs were manufactured by chlorination of biphenyl to produce complex mixtures (Aroclors in the USA and Great Britain, Clophens in Germany, or Kanechlors in Japan), each containing 60 to 90 different molecular species *(congeners)* and a specified weight percent of chlorine (for example, 54% in Aroclor 1254). There are 209 distinct congener structures possible, of which about 140 to 150 have been detected at significant levels in commercial PCBs.

Congener distributions in environmental samples roughly resemble those of the parent commercial mixtures, but are often modified due to evaporation, water extraction, microbial oxidation or dechlorination, photochemical dechlorination or differential biological uptake and metabolism. Compositional modification from original Aroclor patterns increases in biotic samples with trophic level. Still, it is often useful or necessary to attempt distinguishing the parent mixture released. The following information is presented to provide assistance with initial, preliminary evaluation of Aroclor. *Aroclor assignment should be conducted only by qualified chemists.*

Total PCBs can be characterized by two primary methods – the sum of congeners, or, the sum of estimates of individual Aroclor concentrations. In lower trophic level samples, these two methods provide approximately equal estimates of total PCBs. At higher trophic levels, analyses of samples tend to overestimate total PCBs by as much as 2-fold using the sum of Aroclor method, due to an overestimation of Aroclor 1254.

Tr - Individual congeners are at trace levels - 0.05 to 0.5% each - and are not included in totals.
- Refers to IUPAC congener number. IUPAC #s 107, 108, 109, 199, 200, 201 correspond to BZ#s 108, 109, 107, 201, 199, and 200, respectively.
a – Biphenyl figures are not reflected in congener weight percentages.
b – The six most prominent peaks listed by IUPAC congener number.
c – In the 118 peak numbering system, peak 1 is biphenyl.
d – This ratio is often used as an indicator for Aroclor 1260.
e – This ratio is often used as an indicator for Aroclor 1248.
f – Congener 153 is persistent in biota and abundantly present in higher chlorinated Aroclors and so provides a degree of modification estimate for biotic samples (increasing modification with decreasing PD values):

$$PD_{153} = \left[\frac{\#153_{theory} - \#153_{sample}}{\#153_{sample}}\right] * 100$$



Screening Quick Reference Table for Toxic Equivalency Factors

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

Compound	2005 Mammals / human TEF	1998 Fish TEF	1998 Avian TEF
CHLORINATED DIBENZO-P-DIOXINS			
2,3,7,8-TCDD	1	1	1
1,2,3,7,8-PeCDD	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.001	<0.001
OCDD	0.0003	<0.0001	< 0.0001
CHLORINATED DIBENZOFURANS			
2,3,7,8-TCDF	0.1	0.05	1
1,2,3,7,8-PeCDF	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01
OCDF	0.0003	<0.0001	0.0001
NON-ORTHO-SUBSTITUTED PCBS			
3,3#,4,4#-tetraCB (PCB 77)	0.0001	0.0001	0.05
3,4,4#,5-tetraCB (PCB 81)	0.0003	0.0005	0.1
3,3#,4,4#,5-pentaCB (PCB 126)	0.1	0.005	0.1
3,3#,4,4#,5,5#-hexaCB (PCB 169)	0.03	0.00005	0.001
MONO-ORTHO-SUBSTITUTED PCBs			
2,3,3#, 4,4#-pentaCB (PCB 105)	0.00003	<0.000005	0.0001
2,3,4,4#,5-pentaCB (PCB 114)	0.00003	<0.000005	0.0001
2,3#,4,4#,5-pentaCB (PCB 118)	0.00003	<0.000005	0.00001
2# ,3,4,4# ,5-pentaCB (PCB 123)	0.00003	<0.000005	0.00001
2,3,3#, 4,4#,5-hexaCB (PCB 156)	0.00003	<0.000005	0.0001
2,3,3#,4,4#,5#-hexaCB (PCB 157)	0.00003	<0.000005	0.0001
2,3#,4,4#,5,5#-hexaCB (PCB 167)	0.00003	<0.000005	0.00001
2,3,3#, 4,4#, 5,5#-heptaCB (PCB 189)	0.00003	<0.000005	0.00001

It has been well established that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), and other chlorinated dioxins, furans, and even PCBs with a similar planar chemical structures are capable of inducing similar toxicity, such as carcinogenicity. Since these compounds generally are observed in mixtures, it is desirable to be able to express the cumulative, overall toxicity of the mixture. However, since each of these congeners does not exhibit the same degree, or potency, of toxicity, some manipulations of raw concentrations are required to express total toxicity.

A number of systems have been developed to express the total, overall toxicity from mixtures of these chemicals. Most commonly, the potency of each congener is weighted relative to a standard, generally the most potent congener. For dioxins and furans, 2,3,7,8-TCDD is the common standard which is given a reference value of one. The weighting, or potency factor, is called a Toxic Equivalency Factor (TEF). When cumulative results are reported, the absolute concentration of each congener is multiplied by its corresponding TEF to derive a TCDD-equivalency. These values are then summed together to give a total Toxic Equivalency Quotient, or TEQ.

The TEQ scheme refers ***only*** to adverse effects (e.g., cancer) following interactions with certain cellular enzyme systems (the Ah receptors). Other toxic effects of dioxins and dioxin-like compounds are not quantified by this method. Because they involve potency to specific enzyme systems, TEF values vary for different animal species.

There are two main schemes:

The two most common systems for determining TEQs are:

1) **I-TEF and I-TEQ:** The older International Toxic Equivalent (I-TEQ) scheme by the North Atlantic Treaty Organization (NATO) initially set up in 1989 and later extended and updated.

2) **WHO-TEF and WHO-TEQ** (also referred to as TEF or TEQ): More recently, the World Health Organization (WHO) suggested modified Toxic Equivalency Factor (TEF) values for human risk assessment.

ITEQs are most common in North America, while Asia and Europe tend to use WHO-TEQs. On average, the result of TEQ-calculations is about 10% higher when I-TEFs are used compared to when WHO-TEFs are used.

Potency in fish reflects mainly rainbow trout: potency for birds is mainly derived from chickens.

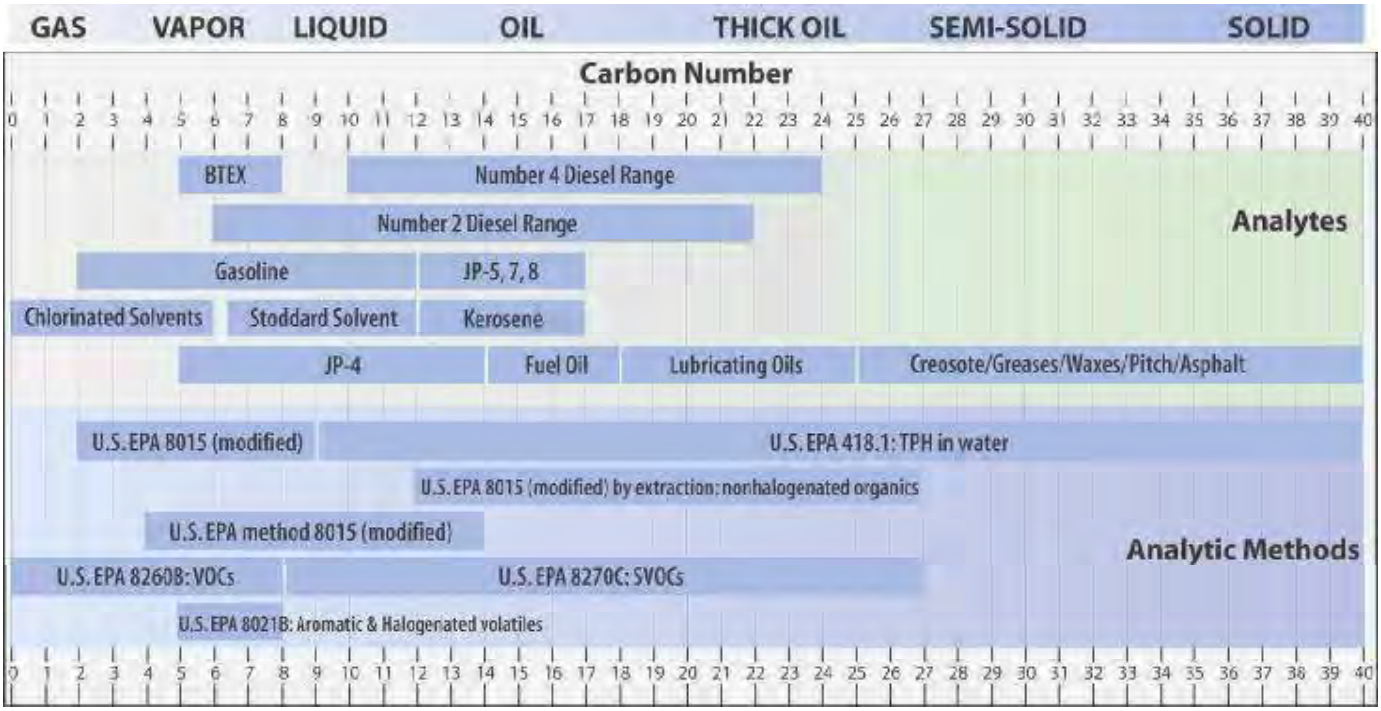
Sources

Van den Berg, M., and others. 1998. “Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, and PCDFs for Humans and Wildlife.” *Environmental Health Perspectives*. Volume 106. Pages 775 - 792.

Van den Berg, M., and others. 2006. “The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds.” *Toxicological Sciences* 93(2):223-241.

Screening Quick Reference Tables for Composition by Carbon Range

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.



Carbon ranges are approximate: actual carbon ranges for a specific product are dependent upon the distillation process of the exact source.

Analytic Methods generally refer to EPA SW-846 methods (www.epa.gov/SW-846/index.htm)



Screening Quick Reference Tables for Sample Collection and Storage

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

MATERIAL	CONTAINER	PRESERVATION	MAXIMUM HOLDING TIME	SAMPLE SIZE
INORGANICS				
Chromium^{+6} (Cr^{+6})	P,G	Cool, 4ºC	24 hours	400 mL/200 g
Mercury (Hg)	P,G	HNO_3, to pH <2	28 days	400 mL/200 g
Metals, except Cr^{+6} and Hg	P,G	HNO_3, to pH <2	6 months	600 mL/200 g
Cyanide by method no. 9010	P,G	Cool 4ºC, pH >12 See method 9010	14 days	1,000 mL
Alpha, Beta, and Radium Radiation	P,G	HNO_3 to pH <2	6 months	1,000 mL
ORGANICS				
Benzidines	G, TLC	Cool, 4ºC	7 days until extraction, 40 days after extraction	1,000 mL
Chlorinated Hydrocarbons	G, TLC	Cool, 4ºC[3]	7 days until extraction, 40 days after extraction	1,000 mL
Dioxins and Furans	G, TLC	Cool, 4ºC[3]	30 days until extraction, 45 days after extraction	1,000 mL
Haloethers	G, TLC	Cool, 4ºC[3]	7 days until extraction, 40 days after extraction	1,000 mL
Nitrites	G, TLC	Cool, 4ºC[3]	14 days	
Nitrosamines	G, TLC	Cool, 4ºC[3]	7 days until extraction, 40 days after extraction	1,000 mL
Nitroaromatics and Cyclic Ketones	G, TLC	Cool, 4ºC[3]	7 days until extraction, 40 days after extraction	1,000 mL
OIL And GREASE	G	Cool, 4ºC[2]	28 days	1,000 mL
TOTAL Organic Carbon, By Method No. 9060	P,G	Cool, 4ºC[2] store in the dark	28 days	100 mL
TOTAL Organic Halides By Method No. 9020/9021	G, TLC	Cool, 4ºC[2]	28 days	500 mL
PCBs	G, TLC	Cool, 4ºC	7 days until extraction, 40 days after extraction	1,000 mL/250 mL
Pesticides	G, TLC	Cool 4ºC,	7 days until extraction, 40 days after extraction	1,000 mL/250 mL
Phenols	G, TLC	Cool, 4ºC[3]	7 days until extraction, 40 days after extraction	1,000 mL
Phthalate Esters	G, TLC	Cool, 4ºC	7 days until extraction, 40 days after extraction	1,000 mL
Polynuclear Aromatic Hydrocarbons	G, TLC	Cool, 4ºC[3] store in the dark	7 days until extraction, 40 days after extraction	1,000 mL/250 mL
Purgeable Aromatic Hydrocarbons	VOA	Cool, 4ºC[2,3]	14 days	40 mL
Purgeable Halocarbons	VOA	Cool, 4ºC[3]	14 days	40 mL

Sources

EPA SW846

1 P - Polyethylene; G - Amber glass containers; TLC - Teflon-lined cap; VOA - Volatile organic analyte vial of amber glass with teflon-lined septum.
2 Adjust to pH <2 with H_2SO_4, HCl, or solid $NaHSO_4$
3 Free chlorine must be removed before addition of HCl by exact addition of $Na_2S_2O_3$



Screening Quick Reference Table
Options for Selection of Analytical Methods: Inorganics

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

TRACE ELEMENT	OTHER [1]	FLAME AA	FURNANCE AA	ICP	EXTRACTION METHODS	
					WATER	SOIL/SEDIMENT
Aluminum (Al)	6800	7020		6010B 6020A	3005A 3010A 3015A	3050B 3051A
Antimony (Sb)	6200(55) 6800	7040	7041 7062 [3]	6010B 6020A	3005A 3015A	3050B 3051A
Arsenic (As)	6200(60) 7063 7061A [3]		7060 7062 [3]	6010B 6020A	3005A 3010A 3015A 7063	3050B 3051A
Barium (Ba)	6200(60) 6800	7080A	7081 [3]	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Beryllium (Be)		7090	7091	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Cadmium (Cd)	6200 6800	7130	7131A	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Calcium (Ca)	6200 6800	7140		6010B 6020A	3005A 3010A 3015A	3050B 3051A
Chromium (CR), total	6200(200) 6800	7190	7191	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Chromium+6 (Cr+6)	7195 — 7199 [3]				7195 - 7199	3060A
Cobalt (Co)	6200(330)	7200	7201	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Copper (Cu)	6200(85) 6800	7210	7211 [3]	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Iron (Fe)	6200 6 800	7380	7381 [3]	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Lead (Pb)	6200(45) 6800	7420	7421	6010B 6020A	3005A 3010A 3015A 3020A	3051A
Magnesium (Mg)	6800	7450		6010B 6020A	3005A 3010A 3015A	3050B 3051A
Manganese (Mn)	6200(240)	7460	7461	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Mercury (Hg)	4500(0.5) 6200 6800 7470A 7471B 7472 7473 7474 [3]			6020A	7470A 7472 3015A	3051A 7471B 7473 7474
Molybdenum (Mo)	6200(25) 6800	7480	7481	6010B	3005A 3010A 3015A 3020A	3050B 3051A
Nickel (Ni)	6200(100) 6800	7520	7521	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Potassium (K)	6200 6800	7610		6010B 6020A	3005A 3010A 3015A	3050B 3051A
Selenium (Se)	6200 6800 7741A 7742 [3]		7740	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Silver (Ag)	6200 6800	7760A	7761 [3]	6010B 6020A	3005A 3015A	3051A 7760 7761
Sodium (Na)		7770		6010B 6020A	3005A 3010A 3015A	3050B 3051A
Strontium (Sr)	6200(30) 6800	7780		6010B	3015A	3050B 3051A
Thallium (Tl)	6200 6800	7840	7841	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Tin (Sn)	6200(85)	7870				
Vanadium (V)	6200 6800	7910	7911	6010B 6020A	3005A 3010A 3015A 3020A	3050B 3051A
Zinc (Zn)	6200(80) 6800	7950	7951 [3]	6010B 6020A	3005A 3010A 3015A	3050B 3051A
Cyanide (HCN)	9010B — 9014 [3]					

Sources

All method numbers refer to EPA SW-846, Volume III with changes as proposed for Volume IV.
ICP's advantage is that it allows simultaneous or rapid sequential determination of many elements, but suffers from interferences. AA determinations are normally completed as single element analyses. ICP and Flame AA have comparable detection limits (within a factor of 4), but ICP-MS (6020A) can drastically improve the detection limits (e.g., an order of magnitude lower). Furnace AA generally exhibits lower detection limits than ICP or Flame-AA, and offers more control over unwanted matrix components. X-RAY and immunoassays allow field determinations.

1 Method 6200 is Portable X-Ray; 6800 is Elemental/Isotope Mass Spec.; 4500 is Immunoassay; 7063 is ASV; where available, soil detection limits in ppm are in parentheses.
2 Except as noted, most individual procedures are proposed to be integrated into Method 7000B or 7010.
3 Includes various methods. Follow the extraction procedure detailed in the individual determinative method.



Screening Quick Reference Table
Options for Selection of Analytical Methods: Organics

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

COMPOUNDS	FIELD METHODS	OC/MS METHOD	SPECIFIC DETECTION METHOD	HPLC METHOD	EXTRACTION METHODS WATER	EXTRACTION METHODS SOIL/SEDIMENT	CLEANUP METHOD
Aromatic and Halogenated Volatiles		8260B	8021B		5021 5030B 5032	5021 5032 5035	
Carbamates				8318 8321B	8318 8321B	8318 8321B	8318
Chlorinated Dioxins and Furans			8280B 8290A		8280B 8290A	8280B 8290A 3545A	8280B 8290A
Chlorinated Hydrocarbons		8270D	8121		3510C 3520C 3535A	3540C 3550B	3620B 3640A
Chlorinated Phenoxyacids	4015 (0.1 ppm)	8270D 2	8151A	8321B	8151A 8321B 3535A	8321B 8151A 3545A 3580A	8151A 3620B
Haloethers		8270D	8111		3510C 3520C	3540C 3545 3550B	3620B 3640A
Nitriles and Amides		8260B	8031 8032A 8033	8315 8316	5030B — 5032 8031 8032A 8316	5031 5032 5035	8032A
Nitroaromatics and Ketones		8270D	8091	8330A	3510C 3520C 3535A	3540C 3545 3550B	3620B 3640A
Nitroaromatics (Explosives)	4050 (0.5 ppm) 4051 8515 (1 ppm)			8330A - 8332	8330A — 8332	8330A — 8332	8330A — 8332 3620B
Nitrosamines		8270D	8070A		3510C 3520C 8070A	3540C 3545 3550B 8070A	3610B 3620B 3640A 8070A
Non-Halogenated Volatiles		8260B	8015B		5030B — 5032	5021 5031 5032 5035	
Organochlorines	4040 — 4042 (0.2 to 20 ppm)	8270D 2	8081B 8275A		3510C 3520C 3535A	3540C 3545A 3550B 3562	3620B 3630C 3640A 3660
Organophosphates		8270D 2	8141B	8321B	3510C 3520C 3535A	3540C 3545A 3550B	3620B
PAHs	4035 (1 ppm)	8270D	8100 8275A	8310	3510C 3520C	3540C 3545 3550B 3561	3610B 3630 3640A 3650B
PCBs	4020 (5 ppm) 9078 (2 ppm)	8270D 2	8082A 8275A		3510C 3520C 3535A	3540C 3545A 3550B 3665A 3562	3620B 3630C 3640A 3660 3665A
Phenolics	4010A (0.5 ppm)	8270D	8041		3510C 3520C	3540C 3545 3550B	3630 3640A 3650B 8041
Phthalates		8270D	8061A		3510C 3520C 3535A	3540C 3545 3550B	3610B 3620B 3640A
Semi-Volatile Organics		8270D			3510C 3520C 3535A	3540C 3545A 3550B	3640A 3650B 3660
Total Organic Halides (TOX)			9020B 9022		9020B 9022		
Total Petroleum Hydrocarbons	4030 (5 ppm) 9074		8015B				
Volatile Organics		8260B	8015B 8021B		5030B — 5032	5021 5031 5032 5035	

Sources

All method numbers refer to EPA SW-846, Update III, with changes as proposed in Update IV.

Options shown are generally for chemical classes; more detailed information may be available for specific compounds

GC/MS methods allow for scanning a broad range of volatile and semi-volatile compounds, but suffer from interference and higher detection limits.

Specific determination methods and HPLC methods allow for more precise determinations of specific compounds of interest.

1 Series 4000 are immunoassays and are for specific compounds within these classes (i.e., 2,4-D, TNT, RDX, and PCP). Soil detection limits are in parentheses.
2 This is not a method of choice, but rather a confirmatory method.



Screening Quick Reference Tables

These tables were developed for screening purposes only: they do not represent official NOAA policy and do not constitute criteria or clean-up levels.
All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

Because trace elements are naturally occurring compounds, concentrations reflective of non-anthropogenically impacted, or "background," are provided in addition to toxicological benchmarks. For screening, trace element levels may be compared to the geometric mean (and range) observed in natural soils in the U.S. Further comparisons to regional values is encouraged.

Promulgated criteria or standards for sediments or soils are generally not available in the U.S. For screening purposes, contaminant levels in solids (sediment or soil) may be compared to benchmarks representative of different characterizations of ecological risk. They should ***not*** be applied without a reasonable understanding of their development, their performance, and their limitations.

The NOAA SQuiRTs include multiple sediment screening values to help portray a spectrum of concentrations which have been associated with various probabilities of adverse biological effects. This spectrum ranges from presumably nearly non-toxic to toxic levels. For instance, if all analytes screen below lower-threshold values (for example, TELs), this suggests, with a high degree of confidence, that a sample with these levels of contaminants has a low probability of being toxic, as tested through standard bioassays. Conversely, exceeding lower thresholds does ***not*** necessarily predict toxicity. Comparison to higher toxicity thresholds (for example, PELs) identifies compounds which are more probably present at elevated, toxic levels.

Sources of benchmarks for sediment were chosen primarily on the basis of representing a fairly unique approach for their derivation. A major exception is the "Consensus TEC/PEC" values: these values are simply averages of other existing benchmarks (mostly those appearing in the SQuiRT cards). The consensus TEC/PECs are provided here merely as a service.

For soil- and sediment-associated contaminants, dry weight concentrations are screened directly against published benchmarks. Some benchmarks are available only on a Total Organic Carbon (TOC) normalized basis, and are footnoted as such. Separate values are provided for either freshwater and estuarine or marine sediments.

For freshwater sediments, the Upper Effects Threshold (UET) was derived by NOAA as the lowest AET from a compilation of endpoint analogous to the marine AET endpoints. The UETs for organic contaminants are generally listed for a sediment containing 1% TOC.

This version of the SQuiRT cards adds a section on the composition of PCBs. A characterization of Aroclors by their degree of chlorination and congener patterns may aid in *preliminary* exploration of source type. Definitive Aroclor assignment should only be conducted by a qualified chemist.

To express cumulative toxicity from mixtures of dioxins and furans, Toxic Equivalency Factors are included in this version of the SQuiRT cards. Absolute concentrations can be multiplied by the TEF potency factors and the products then summed to derive total toxicity.

Every effort has been made to ensure accuracy in these SQuiRT cards. However, NOAA is not liable for errors in original sources or revision of values. These screening values are subject to change as new data become available. The SQuiRT cards may be freely reproduced and distributed, if they are distributed in their entirety, without modification, and properly credited to NOAA.

The SQuiRT cards should be cited as:

"Buchman, M. F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoriation Division, National Oceanic and Atmospheric Administration, 34 pages."

2018

GROUNDWATER

LABORATORY

ANALYTICAL DATA

PHOENIX
Environmental Laboratories, Inc.

Monday, June 11, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA61339 - CA61344

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

Analysis Report

June 11, 2018

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:		05/30/18	10:25
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61339

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	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	0.207	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	0.007	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	06/01/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	0.003	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.0030	0.0030	mg/L	5	06/01/18	PS	SW6020B
Selenium	< 0.02	0.02	mg/L	1	06/01/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/31/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/31/18	P/R	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	06/05/18	JRB	50 - 150 %

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CA61339

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Acetone	ND	25	ug/L	1	06/05/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Benzene	1.2	0.70	ug/L	1	06/05/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Carbon Disulfide	5.1	5.0	ug/L	1	06/05/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Ethylbenzene	1.2	1.0	ug/L	1	06/05/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C

Ver 1

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	06/05/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Naphthalene	1.3	1.0	ug/L	1	06/05/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/05/18	MH	SW8260C
Toluene	3.5	1.0	ug/L	1	06/05/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	06/05/18	MH	70 - 130 %
% Bromofluorobenzene	108		%	1	06/05/18	MH	70 - 130 %
% Dibromofluoromethane	115		%	1	06/05/18	MH	70 - 130 %
% Toluene-d8	114		%	1	06/05/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/04/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CA61339

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	06/04/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	06/04/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	06/04/18	KCA	30 - 130 %
% 2-Fluorophenol	45		%	1	06/04/18	KCA	15 - 110 %
% Nitrobenzene-d5	65		%	1	06/04/18	KCA	30 - 130 %
% Phenol-d5	55		%	1	06/04/18	KCA	15 - 110 %
% Terphenyl-d14	74		%	1	06/04/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthene	0.35	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthylene	0.13	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Anthracene	0.08	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluoranthene	0.16	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CA61339

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachlorobenzene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Naphthalene	0.16	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	B*
Nitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Phenanthrene	0.06	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyrene	0.26	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	70		%	1	06/04/18	DD	15 - 110 %	
% 2-Fluorobiphenyl	63		%	1	06/04/18	DD	30 - 130 %	
% 2-Fluorophenol	50		%	1	06/04/18	DD	15 - 110 %	
% Nitrobenzene-d5	84		%	1	06/04/18	DD	30 - 130 %	
% Phenol-d5	71		%	1	06/04/18	DD	15 - 110 %	
% Terphenyl-d14	88		%	1	06/04/18	DD	30 - 130 %	

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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
June 11, 2018
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

June 11, 2018

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:		05/30/18	9:08
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61340

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	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	0.111	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	0.002	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	06/01/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.05	0.05	mg/L	1	06/01/18	MA	SW6010C
Selenium	< 0.02	0.02	mg/L	1	06/01/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	0.003	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/31/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/31/18	P/R	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.89	0.066	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	06/05/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CA61340

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,1,1-Trichloroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	2	06/05/18	MH	SW8260C
1,1,2-Trichloroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,1-Dichloroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	2	06/05/18	MH	SW8260C
1,1-Dichloropropene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2,3-Trichloropropane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2,4-Trimethylbenzene	16	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.1	ug/L	2	06/05/18	MH	SW8260C
1,2-Dibromoethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2-Dichlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,2-Dichloroethane	ND	1.2	ug/L	2	06/05/18	MH	SW8260C
1,2-Dichloropropane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,3,5-Trimethylbenzene	5.9	2.0	ug/L	2	06/05/18	MH	SW8260C
1,3-Dichlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,3-Dichloropropane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
1,4-Dichlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
2,2-Dichloropropane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
2-Chlorotoluene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
2-Hexanone	ND	10	ug/L	2	06/05/18	MH	SW8260C
2-Isopropyltoluene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
4-Chlorotoluene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
4-Methyl-2-pentanone	ND	10	ug/L	2	06/05/18	MH	SW8260C
Acetone	ND	50	ug/L	2	06/05/18	MH	SW8260C
Acrylonitrile	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Benzene	190	14	ug/L	20	06/05/18	MH	SW8260C
Bromobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Bromochloromethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Bromodichloromethane	ND	1.0	ug/L	2	06/05/18	MH	SW8260C
Bromoform	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Bromomethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Carbon Disulfide	ND	10	ug/L	2	06/05/18	MH	SW8260C
Carbon tetrachloride	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Chlorobenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Chloroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Chloroform	6.1	2.0	ug/L	2	06/05/18	MH	SW8260C
Chloromethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.80	ug/L	2	06/05/18	MH	SW8260C
Dibromochloromethane	ND	1.0	ug/L	2	06/05/18	MH	SW8260C
Dibromomethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Dichlorodifluoromethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Ethylbenzene	84	20	ug/L	20	06/05/18	MH	SW8260C
Hexachlorobutadiene	ND	0.80	ug/L	2	06/05/18	MH	SW8260C
Isopropylbenzene	3.8	2.0	ug/L	2	06/05/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CA61340

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	48	2.0	ug/L	2	06/05/18	MH	SW8260C
Methyl ethyl ketone	ND	10	ug/L	2	06/05/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Methylene chloride	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Naphthalene	290	20	ug/L	20	06/05/18	MH	SW8260C
n-Butylbenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
n-Propylbenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
o-Xylene	57	2.0	ug/L	2	06/05/18	MH	SW8260C
p-Isopropyltoluene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
sec-Butylbenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Styrene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
tert-Butylbenzene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Tetrachloroethene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	5.0	ug/L	2	06/05/18	MH	SW8260C
Toluene	250	20	ug/L	20	06/05/18	MH	SW8260C
Total Xylenes	105.0	2.0	ug/L	2	06/05/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.80	ug/L	2	06/05/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/L	2	06/05/18	MH	SW8260C
Trichloroethene	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Trichlorofluoromethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Trichlorotrifluoroethane	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
Vinyl chloride	ND	2.0	ug/L	2	06/05/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	106		%	2	06/05/18	MH	70 - 130 %
% Bromofluorobenzene	109		%	2	06/05/18	MH	70 - 130 %
% Dibromofluoromethane	120		%	2	06/05/18	MH	70 - 130 %
% Toluene-d8	111		%	2	06/05/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	6.7	ug/L	2	06/04/18	PS	SW8270D
1,2-Dichlorobenzene	ND	4.8	ug/L	2	06/04/18	PS	SW8270D
1,2-Diphenylhydrazine	ND	6.0	ug/L	2	06/04/18	PS	SW8270D
1,3-Dichlorobenzene	ND	4.8	ug/L	2	06/04/18	PS	SW8270D
1,4-Dichlorobenzene	ND	4.8	ug/L	2	06/04/18	PS	SW8270D
2,4,5-Trichlorophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2,4,6-Trichlorophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2,4-Dichlorophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2,4-Dimethylphenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2,4-Dinitrophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2,4-Dinitrotoluene	ND	9.6	ug/L	2	06/04/18	PS	SW8270D
2,6-Dinitrotoluene	ND	9.6	ug/L	2	06/04/18	PS	SW8270D
2-Chloronaphthalene	ND	9.6	ug/L	2	06/04/18	PS	SW8270D
2-Chlorophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
2-Methylphenol (o-cresol)	2.2	1.9	ug/L	2	06/04/18	PS	SW8270D
2-Nitroaniline	ND	9.6	ug/L	2	06/04/18	PS	SW8270D
2-Nitrophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	19	ug/L	2	06/04/18	PS	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	2	06/04/18	PS	SW8270D
3-Nitroaniline	ND	9.6	ug/L	2	06/04/18	PS	SW8270D

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CA61340

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D	
4-Bromophenyl phenyl ether	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
4-Chloro-3-methylphenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D	
4-Chloroaniline	ND	6.7	ug/L	2	06/04/18	PS	SW8270D	
4-Chlorophenyl phenyl ether	ND	1.9	ug/L	2	06/04/18	PS	SW8270D	
4-Nitroaniline	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
4-Nitrophenol	ND	1.9	ug/L	2	06/04/18	PS	SW8270D	
Acenaphthene	14	9.6	ug/L	2	06/04/18	PS	SW8270D	
Acetophenone	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Aniline	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Benzidine	ND	5.0	ug/L	2	06/04/18	PS	SW8270D	
Benzoic acid	ND	96	ug/L	2	06/04/18	PS	SW8270D	
Benzyl butyl phthalate	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Bis(2-chloroethoxy)methane	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Bis(2-chloroethyl)ether	ND	1.9	ug/L	2	06/04/18	PS	SW8270D	
Bis(2-chloroisopropyl)ether	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Carbazole	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Diethyl phthalate	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Dimethylphthalate	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Di-n-butylphthalate	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Di-n-octylphthalate	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Isophorone	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Naphthalene	180	48	ug/L	10	06/05/18	PS	SW8270D	B
N-Nitrosodimethylamine	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
N-Nitrosodi-n-propylamine	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
N-Nitrosodiphenylamine	ND	9.6	ug/L	2	06/04/18	PS	SW8270D	
Phenol	5.0	1.9	ug/L	2	06/04/18	PS	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	69		%	2	06/04/18	PS	15 - 110 %	
% 2-Fluorobiphenyl	61		%	2	06/04/18	PS	30 - 130 %	
% 2-Fluorophenol	33		%	2	06/04/18	PS	15 - 110 %	
% Nitrobenzene-d5	48		%	2	06/04/18	PS	30 - 130 %	
% Phenol-d5	37		%	2	06/04/18	PS	15 - 110 %	
% Terphenyl-d14	67		%	2	06/04/18	PS	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	06/04/18	DD	SW8270D (SIM)	
2-Methylnaphthalene	7.0	0.96	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Acenaphthylene	4.2	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Anthracene	0.70	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Benz(a)anthracene	0.06	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Benzo(a)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Chrysene	0.06	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Dibenzofuran	0.48	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Fluoranthene	1.1	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CA61340

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	3.0	0.10	ug/L	1	06/04/18	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	06/04/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	06/04/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	06/04/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	06/04/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	06/04/18	DD	SW8270D (SIM)
Phenanthrene	3.0	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Pyrene	1.5	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	06/04/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	06/04/18	DD	15 - 110 %
% 2-Fluorobiphenyl	57		%	1	06/04/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	06/04/18	DD	15 - 110 %
% Nitrobenzene-d5	58		%	1	06/04/18	DD	30 - 130 %
% Phenol-d5	46		%	1	06/04/18	DD	15 - 110 %
% Terphenyl-d14	87		%	1	06/04/18	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.

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 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
June 11, 2018
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

June 11, 2018

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:		05/30/18	9:25
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61341

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	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	0.172	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	0.020	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	0.006	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	06/01/18	RS	SW7470A
Nickel	0.006	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.05	0.05	mg/L	1	06/01/18	MA	SW6010C
Selenium	< 0.02	0.02	mg/L	1	06/01/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	0.011	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	0.037	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/31/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/31/18	P/R	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	67		%	1	06/05/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: CA61341

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/05/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Acetone	ND	25	ug/L	1	06/05/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	06/05/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/05/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: CA61341

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/05/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/05/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/05/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/05/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	06/05/18	MH	70 - 130 %
% Bromofluorobenzene	107		%	1	06/05/18	MH	70 - 130 %
% Dibromofluoromethane	112		%	1	06/05/18	MH	70 - 130 %
% Toluene-d8	113		%	1	06/05/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/04/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: CA61341

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	06/04/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	69		%	1	06/04/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	06/04/18	KCA	30 - 130 %
% 2-Fluorophenol	42		%	1	06/04/18	KCA	15 - 110 %
% Nitrobenzene-d5	60		%	1	06/04/18	KCA	30 - 130 %
% Phenol-d5	47		%	1	06/04/18	KCA	15 - 110 %
% Terphenyl-d14	67		%	1	06/04/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-23S

Phoenix I.D.: CA61341

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachlorobenzene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Naphthalene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	B
Nitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	70		%	1	06/04/18	DD	15 - 110 %	
% 2-Fluorobiphenyl	58		%	1	06/04/18	DD	30 - 130 %	
% 2-Fluorophenol	44		%	1	06/04/18	DD	15 - 110 %	
% Nitrobenzene-d5	69		%	1	06/04/18	DD	30 - 130 %	
% Phenol-d5	58		%	1	06/04/18	DD	15 - 110 %	
% Terphenyl-d14	78		%	1	06/04/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
June 11, 2018
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

June 11, 2018

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:		05/30/18	12:57
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61342

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	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	0.088	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	0.066	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/31/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.05	0.05	mg/L	1	06/01/18	EK	SW6010C
Selenium	< 0.02	0.02	mg/L	1	06/01/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	0.005	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	0.003	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/31/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/31/18	P/R	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.34	0.066	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	06/05/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CA61342

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Acetone	ND	25	ug/L	1	06/04/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	06/04/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroform	12	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CA61342

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Naphthalene	1.6	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/04/18	MH	SW8260C
Toluene	1.2	1.0	ug/L	1	06/04/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	06/04/18	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	06/04/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	06/04/18	MH	70 - 130 %
% Toluene-d8	94		%	1	06/04/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/04/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/04/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CA61342

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	06/04/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/04/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	06/04/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	06/04/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	06/04/18	KCA	30 - 130 %
% 2-Fluorophenol	36		%	1	06/04/18	KCA	15 - 110 %
% Nitrobenzene-d5	53		%	1	06/04/18	KCA	30 - 130 %
% Phenol-d5	28		%	1	06/04/18	KCA	15 - 110 %
% Terphenyl-d14	70		%	1	06/04/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthene	0.15	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Acenaphthylene	0.41	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/04/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/04/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluoranthene	0.10	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)
Fluorene	0.16	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CA61342

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachlorobenzene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Naphthalene	1.3	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	B
Nitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Phenanthrene	0.33	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyrene	0.15	0.05	ug/L	1	06/04/18	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	06/04/18	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	72		%	1	06/04/18	DD	15 - 110 %	
% 2-Fluorobiphenyl	58		%	1	06/04/18	DD	30 - 130 %	
% 2-Fluorophenol	41		%	1	06/04/18	DD	15 - 110 %	
% Nitrobenzene-d5	72		%	1	06/04/18	DD	30 - 130 %	
% Phenol-d5	62		%	1	06/04/18	DD	15 - 110 %	
% Terphenyl-d14	91		%	1	06/04/18	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.

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
June 11, 2018
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

June 11, 2018

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:		05/30/18	16:30
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61343

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/31/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.05	0.05	mg/L	1	06/01/18	EK	SW6010C
Selenium	< 0.02	0.02	mg/L	1	06/01/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	0.007	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/31/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				06/04/18	P/D/D	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	06/05/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CA61343

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Acetone	ND	25	ug/L	1	06/04/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	06/04/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CA61343

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/04/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	06/04/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	06/04/18	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	06/04/18	MH	70 - 130 %
% Toluene-d8	94		%	1	06/04/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/07/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CA61343

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	06/07/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	06/07/18	DD	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	06/07/18	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	06/07/18	DD	15 - 110 %
% Nitrobenzene-d5	73		%	1	06/07/18	DD	30 - 130 %
% Phenol-d5	62		%	1	06/07/18	DD	15 - 110 %
% Terphenyl-d14	82		%	1	06/07/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	06/06/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	2.6	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/06/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CA61343

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	06/06/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	06/06/18	DD	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	06/06/18	DD	30 - 130 %
% 2-Fluorophenol	54		%	1	06/06/18	DD	15 - 110 %
% Nitrobenzene-d5	91		%	1	06/06/18	DD	30 - 130 %
% Phenol-d5	72		%	1	06/06/18	DD	15 - 110 %
% Terphenyl-d14	73		%	1	06/06/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
June 11, 2018
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

June 11, 2018

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:		05/30/18	
Location Code:	TIGHE-DAS	Received by:	DL	05/30/18	17:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14075544B				

Laboratory Data

SDG ID: GCA61339
Phoenix ID: CA61344

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	06/04/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA61344

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	06/04/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	06/04/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/04/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	92		%	1	06/04/18	MH	70 - 130 %
% Bromofluorobenzene	91		%	1	06/04/18	MH	70 - 130 %
% Dibromofluoromethane	90		%	1	06/04/18	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA61344

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	91		%	1	06/04/18	MH	70 - 130 %

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

Comments:

TRIP BLANK INCLUDED.

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Phyllis Shiller, Laboratory Director
June 11, 2018
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

June 11, 2018

QA/QC Data

SDG I.D.: GCA61339

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 432640 (mg/L), QC Sample No: CA60561 (CA61339, CA61340, CA61341)													
Mercury - Water	BRL	0.0002	<0.0002	0.0002	NC	94.4			87.9			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 432731 (mg/L), QC Sample No: CA60713 (CA61339)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	0.008	0.006	NC	95.6			102			75 - 125	20
Barium	BRL	0.002	0.286	0.286	0	104			103			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	99.7			102			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	96.3			98.7			75 - 125	20
Chromium	BRL	0.001	<0.001	0.001	NC	96.0			99.8			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	101			103			75 - 125	20
Lead	BRL	0.002	0.004	0.005	NC	96.4			99.8			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	99.2			101			75 - 125	20
Selenium	BRL	0.010	0.020	0.016	NC	94.0			98.0			75 - 125	20
Silver	BRL	0.001	0.002	0.002	NC	97.0			102			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	98.7			102			75 - 125	20
Zinc	BRL	0.002	0.003	0.004	NC	95.9			99.9			75 - 125	20
QA/QC Batch 432639 (mg/L), QC Sample No: CA60946 (CA61342, CA61343)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	98.1			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%.													
QA/QC Batch 432747 (mg/L), QC Sample No: CA61339 5X (CA61339, CA61340, CA61341, CA61342, CA61343)													
ICP MS Metals - Aqueous													
Antimony	BRL	0.0020	<0.0030	<0.0020	NC	104			105			75 - 125	20
Thallium	BRL	0.0015	<0.0005	<0.0015	NC	98.2			100			75 - 125	20
QA/QC Batch 432732 (mg/L), QC Sample No: CA61539 (CA61340, CA61341, CA61342, CA61343)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	113			111			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	103			102			75 - 125	20
Barium	BRL	0.002	0.033	0.032	3.10	106			104			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	105			103			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	110			103			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	106			101			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	103			102			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	107			102			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	110			104			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	103			99.4			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	102			99.6			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	104			101			75 - 125	20
Zinc	BRL	0.002	<0.002	<0.002	NC	107			103			75 - 125	20

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

June 11, 2018

QA/QC Data

SDG I.D.: GCA61339

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 433119 (mg/L), QC Sample No: CA61339 (CA61339, CA61340, CA61341, CA61342, CA61343)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	92.5			103			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

June 11, 2018

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 433110 (mg/L), QC Sample No: CA61339 (CA61339, CA61340, CA61341, CA61342, CA61343)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	80	78	2.5				60 - 120	30
% n-Pentacosane	68	%	74	68	8.5				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 433254 (ug/L), QC Sample No: CA61344 (CA61342, CA61343, CA61344)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	101	97	4.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	98	95	3.1				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	101	92	9.3				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	101	86	16.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	96	92	4.3				70 - 130	30
1,1-Dichloroethene	ND	1.0	106	106	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	100	99	1.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	98	94	4.2				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	97	89	8.6				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	101	96	5.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	99	100	1.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	99	85	15.2				70 - 130	30
1,2-Dibromoethane	ND	1.0	102	95	7.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	101	97	4.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	96	85	12.2				70 - 130	30
1,2-Dichloropropane	ND	1.0	100	93	7.3				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	98	100	2.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	98	2.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	99	90	9.5				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	99	97	2.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	99	91	8.4				70 - 130	30
2-Chlorotoluene	ND	1.0	100	101	1.0				70 - 130	30
2-Hexanone	ND	5.0	80	70	13.3				70 - 130	30
2-Isopropyltoluene	ND	1.0	98	99	1.0				70 - 130	30
4-Chlorotoluene	ND	1.0	98	99	1.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	87	70	21.7				70 - 130	30
Acetone	ND	5.0	55	55	0.0				70 - 130	30
Acrylonitrile	ND	5.0	90	77	15.6				70 - 130	30
Benzene	ND	0.70	99	95	4.1				70 - 130	30
Bromobenzene	ND	1.0	101	100	1.0				70 - 130	30
Bromochloromethane	ND	1.0	100	87	13.9				70 - 130	30
Bromodichloromethane	ND	0.50	102	92	10.3				70 - 130	30
Bromoform	ND	1.0	106	92	14.1				70 - 130	30
Bromomethane	ND	1.0	106	106	0.0				70 - 130	30

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	1.0	99	100	1.0				70 - 130	30	
Carbon tetrachloride	ND	1.0	103	100	3.0				70 - 130	30	
Chlorobenzene	ND	1.0	99	97	2.0				70 - 130	30	
Chloroethane	ND	1.0	98	97	1.0				70 - 130	30	
Chloroform	ND	1.0	94	87	7.7				70 - 130	30	
Chloromethane	ND	1.0	102	100	2.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	99	94	5.2				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	101	89	12.6				70 - 130	30	
Dibromochloromethane	ND	0.50	108	100	7.7				70 - 130	30	
Dibromomethane	ND	1.0	101	87	14.9				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	130	136	4.5				70 - 130	30	I
Ethylbenzene	ND	1.0	102	101	1.0				70 - 130	30	
Hexachlorobutadiene	ND	0.40	108	113	4.5				70 - 130	30	
Isopropylbenzene	ND	1.0	99	103	4.0				70 - 130	30	
m&p-Xylene	ND	1.0	100	97	3.0				70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	59	18.5				70 - 130	30	I
Methyl t-butyl ether (MTBE)	ND	1.0	98	76	25.3				70 - 130	30	
Methylene chloride	ND	1.0	91	105	14.3				70 - 130	30	
Naphthalene	ND	1.0	99	94	5.2				70 - 130	30	
n-Butylbenzene	ND	1.0	100	97	3.0				70 - 130	30	
n-Propylbenzene	ND	1.0	100	100	0.0				70 - 130	30	
o-Xylene	ND	1.0	102	98	4.0				70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	99	0.0				70 - 130	30	
sec-Butylbenzene	ND	1.0	102	100	2.0				70 - 130	30	
Styrene	ND	1.0	101	97	4.0				70 - 130	30	
tert-Butylbenzene	ND	1.0	98	99	1.0				70 - 130	30	
Tetrachloroethene	ND	1.0	104	98	5.9				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	84	69	19.6				70 - 130	30	I
Toluene	ND	1.0	104	97	7.0				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	102	100	2.0				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	97	82	16.8				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	102	93	9.2				70 - 130	30	
Trichloroethene	ND	1.0	99	98	1.0				70 - 130	30	
Trichlorofluoromethane	ND	1.0	103	104	1.0				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	114	115	0.9				70 - 130	30	
Vinyl chloride	ND	1.0	110	112	1.8				70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	97	3.0				70 - 130	30	
% Bromofluorobenzene	96	%	98	94	4.2				70 - 130	30	
% Dibromofluoromethane	99	%	101	91	10.4				70 - 130	30	
% Toluene-d8	93	%	101	99	2.0				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 432741 (ug/L), QC Sample No: CA61703 (CA61339, CA61340, CA61341, CA61342)

Semivolatiles (SIM) - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	0.50	58	59	1.7				30 - 130	20	
2-Methylnaphthalene	ND	0.02	56	62	10.2				30 - 130	20	
Acenaphthene	ND	0.02	63	68	7.6				30 - 130	20	
Acenaphthylene	ND	0.02	54	59	8.8				30 - 130	20	
Anthracene	ND	0.02	76	72	5.4				30 - 130	20	
Benz(a)anthracene	ND	0.02	73	74	1.4				30 - 130	20	
Benzo(a)pyrene	ND	0.02	66	65	1.5				30 - 130	20	

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(b)fluoranthene	ND	0.02	83	77	7.5				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	60	57	5.1				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	82	80	2.5				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.10	79	81	2.5				30 - 130	20	
Chrysene	ND	0.02	77	75	2.6				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	65	59	9.7				30 - 130	20	
Dibenzofuran	ND	0.05	63	68	7.6				30 - 130	20	
Fluoranthene	ND	0.02	77	71	8.1				30 - 130	20	
Fluorene	ND	0.02	66	68	3.0				30 - 130	20	
Hexachlorobenzene	ND	0.02	82	78	5.0				30 - 130	20	
Hexachlorobutadiene	ND	0.05	48	53	9.9				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	33	34	3.0				30 - 130	20	
Hexachloroethane	ND	0.05	42	40	4.9				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	62	58	6.7				30 - 130	20	
Naphthalene	0.04	0.02	51	55	7.5				30 - 130	20	
Nitrobenzene	ND	0.05	54	58	7.1				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	91	86	5.6				30 - 130	20	
Pentachlorophenol	ND	0.20	112	101	10.3				30 - 130	20	
Phenanthrene	ND	0.02	74	66	11.4				30 - 130	20	
Pyrene	ND	0.02	80	74	7.8				30 - 130	20	
Pyridine	ND	0.50	38	43	12.3				30 - 130	20	
% 2,4,6-Tribromophenol	82	%	100	92	8.3				15 - 110	20	
% 2-Fluorobiphenyl	60	%	58	59	1.7				30 - 130	20	
% 2-Fluorophenol	52	%	35	41	15.8				15 - 110	20	
% Nitrobenzene-d5	61	%	51	53	3.8				30 - 130	20	
% Phenol-d5	56	%	43	46	6.7				15 - 110	20	
% Terphenyl-d14	71	%	80	72	10.5				30 - 130	20	

Comment:

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

QA/QC Batch 432741 (ug/L), QC Sample No: CA61703 (CA61339, CA61340, CA61341, CA61342)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5	53	60	12.4				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	42	52	21.3				30 - 130	20	r
1,2-Diphenylhydrazine	ND	1.6	84	86	2.4				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	39	48	20.7				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0	41	50	19.8				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	76	78	2.6				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	68	71	4.3				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	63	68	7.6				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	72	79	9.3				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	88	85	3.5				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	83	81	2.4				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	79	79	0.0				30 - 130	20	
2-Chloronaphthalene	ND	3.5	66	72	8.7				30 - 130	20	
2-Chlorophenol	ND	1.0	40	47	16.1				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	52	59	12.6				30 - 130	20	
2-Nitroaniline	ND	3.5	121	116	4.2				30 - 130	20	
2-Nitrophenol	ND	1.0	69	78	12.2				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	56	63	11.8				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	85	78	8.6				30 - 130	20	
3-Nitroaniline	ND	5.0	92	90	2.2				30 - 130	20	

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4,6-Dinitro-2-methylphenol	ND	1.0	92	87	5.6				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	74	78	5.3				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	82	84	2.4				30 - 130	20	
4-Chloroaniline	ND	3.5	88	94	6.6				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	76	77	1.3				30 - 130	20	
4-Nitroaniline	ND	5.0	84	85	1.2				30 - 130	20	
4-Nitrophenol	ND	1.0	92	86	6.7				15 - 130	20	
Acenaphthene	ND	1.5	75	78	3.9				30 - 130	20	
Acetophenone	ND	3.5	53	60	12.4				30 - 130	20	
Aniline	ND	3.5	50	58	14.8				30 - 130	20	
Benzidine	ND	4.5	99	93	6.3				30 - 130	20	
Benzoic acid	ND	10	49	52	5.9				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	86	83	3.6				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	60	68	12.5				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	42	49	15.4				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	51	61	17.9				30 - 130	20	
Carbazole	ND	5.0	84	80	4.9				30 - 130	20	
Diethyl phthalate	ND	1.5	85	84	1.2				30 - 130	20	
Dimethylphthalate	ND	1.5	79	79	0.0				30 - 130	20	
Di-n-butylphthalate	ND	1.5	89	86	3.4				30 - 130	20	
Di-n-octylphthalate	ND	1.5	89	83	7.0				30 - 130	20	
Isophorone	ND	3.5	65	70	7.4				30 - 130	20	
Naphthalene	ND	1.5	61	68	10.9				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	34	42	21.1				30 - 130	20	r
N-Nitrosodi-n-propylamine	ND	3.5	65	72	10.2				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	71	72	1.4				30 - 130	20	
Phenol	ND	1.0	43	50	15.1				15 - 130	20	
% 2,4,6-Tribromophenol	84	%	95	91	4.3				15 - 110	20	
% 2-Fluorobiphenyl	64	%	63	67	6.2				30 - 130	20	
% 2-Fluorophenol	41	%	30	39	26.1				15 - 110	20	r
% Nitrobenzene-d5	55	%	52	59	12.6				30 - 130	20	
% Phenol-d5	50	%	41	48	15.7				15 - 110	20	
% Terphenyl-d14	75	%	83	80	3.7				30 - 130	20	

Comment:

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

QA/QC Batch 433222 (ug/L), QC Sample No: CA63284 (CA61339, CA61340 (2X, 20X) , CA61341)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	109	112	2.7				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	105	110	4.7				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	111	115	3.5				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	99	104	4.9				70 - 130	30	
1,1-Dichloroethane	ND	1.0	104	109	4.7				70 - 130	30	
1,1-Dichloroethene	ND	1.0	106	110	3.7				70 - 130	30	
1,1-Dichloropropene	ND	1.0	108	111	2.7				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	102	109	6.6				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	106	111	4.6				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	103	107	3.8				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	111	113	1.8				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	112	116	3.5				70 - 130	30	
1,2-Dibromoethane	ND	1.0	104	110	5.6				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	106	109	2.8				70 - 130	30	

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dichloroethane	ND	1.0	104	106	1.9				70 - 130	30
1,2-Dichloropropane	ND	1.0	104	108	3.8				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	112	113	0.9				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	108	110	1.8				70 - 130	30
1,3-Dichloropropane	ND	1.0	105	108	2.8				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	107	109	1.9				70 - 130	30
2,2-Dichloropropane	ND	1.0	104	106	1.9				70 - 130	30
2-Chlorotoluene	ND	1.0	109	111	1.8				70 - 130	30
2-Hexanone	ND	5.0	88	95	7.7				70 - 130	30
2-Isopropyltoluene	ND	1.0	111	113	1.8				70 - 130	30
4-Chlorotoluene	ND	1.0	109	109	0.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	88	94	6.6				70 - 130	30
Acetone	ND	5.0	96	98	2.1				70 - 130	30
Acrylonitrile	ND	5.0	98	103	5.0				70 - 130	30
Benzene	ND	0.70	104	108	3.8				70 - 130	30
Bromobenzene	ND	1.0	110	111	0.9				70 - 130	30
Bromochloromethane	ND	1.0	101	106	4.8				70 - 130	30
Bromodichloromethane	ND	0.50	105	108	2.8				70 - 130	30
Bromoform	ND	1.0	108	114	5.4				70 - 130	30
Bromomethane	ND	1.0	137	145	5.7				70 - 130	30
Carbon Disulfide	ND	1.0	103	106	2.9				70 - 130	30
Carbon tetrachloride	ND	1.0	108	113	4.5				70 - 130	30
Chlorobenzene	ND	1.0	106	109	2.8				70 - 130	30
Chloroethane	ND	1.0	100	105	4.9				70 - 130	30
Chloroform	ND	1.0	102	106	3.8				70 - 130	30
Chloromethane	ND	1.0	103	110	6.6				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	103	108	4.7				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	103	108	4.7				70 - 130	30
Dibromochloromethane	ND	0.50	113	115	1.8				70 - 130	30
Dibromomethane	ND	1.0	100	104	3.9				70 - 130	30
Dichlorodifluoromethane	ND	1.0	114	120	5.1				70 - 130	30
Ethylbenzene	ND	1.0	110	112	1.8				70 - 130	30
Hexachlorobutadiene	ND	0.40	113	114	0.9				70 - 130	30
Isopropylbenzene	ND	1.0	112	112	0.0				70 - 130	30
m&p-Xylene	ND	1.0	107	110	2.8				70 - 130	30
Methyl ethyl ketone	ND	5.0	93	98	5.2				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	97	101	4.0				70 - 130	30
Methylene chloride	ND	1.0	99	104	4.9				70 - 130	30
Naphthalene	ND	1.0	109	116	6.2				70 - 130	30
n-Butylbenzene	ND	1.0	115	116	0.9				70 - 130	30
n-Propylbenzene	ND	1.0	111	113	1.8				70 - 130	30
o-Xylene	ND	1.0	108	111	2.7				70 - 130	30
p-Isopropyltoluene	ND	1.0	113	115	1.8				70 - 130	30
sec-Butylbenzene	ND	1.0	116	118	1.7				70 - 130	30
Styrene	ND	1.0	107	111	3.7				70 - 130	30
tert-Butylbenzene	ND	1.0	112	113	0.9				70 - 130	30
Tetrachloroethene	ND	1.0	106	109	2.8				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	95	105	10.0				70 - 130	30
Toluene	ND	1.0	105	108	2.8				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	105	110	4.7				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	99	103	4.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	109	114	4.5				70 - 130	30
Trichloroethene	ND	1.0	106	109	2.8				70 - 130	30

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorofluoromethane	ND	1.0	104	108	3.8				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	111	115	3.5				70 - 130	30	
Vinyl chloride	ND	1.0	106	112	5.5				70 - 130	30	
% 1,2-dichlorobenzene-d4	104	%	105	105	0.0				70 - 130	30	
% Bromofluorobenzene	108	%	111	113	1.8				70 - 130	30	
% Dibromofluoromethane	116	%	114	115	0.9				70 - 130	30	
% Toluene-d8	112	%	115	115	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 433113 (ug/L), QC Sample No: CA63410 (CA61343)

Semivolatiles (SIM) - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	0.50	64	67	4.6				30 - 130	20	
2-Methylnaphthalene	ND	0.02	66	66	0.0				30 - 130	20	
Acenaphthene	ND	0.02	65	60	8.0				30 - 130	20	
Acenaphthylene	ND	0.02	61	61	0.0				30 - 130	20	
Anthracene	ND	0.02	73	70	4.2				30 - 130	20	
Benz(a)anthracene	ND	0.02	74	75	1.3				30 - 130	20	
Benzo(a)pyrene	ND	0.02	65	42	43.0				30 - 130	20	r
Benzo(b)fluoranthene	ND	0.02	65	60	8.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	60	50	18.2				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	81	74	9.0				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.10	85	92	7.9				30 - 130	20	
Chrysene	ND	0.02	72	63	13.3				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	62	61	1.6				30 - 130	20	
Dibenzofuran	ND	0.05	64	64	0.0				30 - 130	20	
Fluoranthene	ND	0.02	68	72	5.7				30 - 130	20	
Fluorene	ND	0.02	67	67	0.0				30 - 130	20	
Hexachlorobenzene	ND	0.02	77	83	7.5				30 - 130	20	
Hexachlorobutadiene	ND	0.05	57	62	8.4				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	35	43	20.5				30 - 130	20	
Hexachloroethane	ND	0.05	50	53	5.8				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	61	55	10.3				30 - 130	20	
Naphthalene	ND	0.02	58	61	5.0				30 - 130	20	
Nitrobenzene	ND	0.05	62	66	6.3				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	77	89	14.5				30 - 130	20	
Pentachlorophenol	ND	0.20	96	114	17.1				30 - 130	20	
Phenanthrene	ND	0.02	72	71	1.4				30 - 130	20	
Pyrene	ND	0.02	68	56	19.4				30 - 130	20	
Pyridine	ND	0.50	43	43	0.0				30 - 130	20	
% 2,4,6-Tribromophenol	78	%	79	94	17.3				15 - 110	20	
% 2-Fluorobiphenyl	61	%	63	64	1.6				30 - 130	20	
% 2-Fluorophenol	53	%	44	45	2.2				15 - 110	20	
% Nitrobenzene-d5	66	%	55	62	12.0				30 - 130	20	
% Phenol-d5	63	%	43	24	56.7				15 - 110	20	r
% Terphenyl-d14	76	%	75	79	5.2				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.: GCA61339

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 433113 (ug/L), QC Sample No: CA63410 (CA61343)											
Semivolatiles - Ground Water											
1,2,4-Trichlorobenzene	ND	3.5	63	69	9.1				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	59	57	3.4				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	81	33	84.2				30 - 130	20	r
1,3-Dichlorobenzene	ND	1.0	56	53	5.5				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	57	58	1.7				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	76	79	3.9				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	72	74	2.7				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	68	75	9.8				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	76	80	5.1				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	75	80	6.5				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	87	84	3.5				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	78	82	5.0				30 - 130	20	
2-Chloronaphthalene	ND	3.5	70	69	1.4				30 - 130	20	
2-Chlorophenol	ND	1.0	53	56	5.5				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	64	61	4.8				30 - 130	20	
2-Nitroaniline	ND	3.5	128	128	0.0				30 - 130	20	
2-Nitrophenol	ND	1.0	74	78	5.3				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	66	67	1.5				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	82	82	0.0				30 - 130	20	
3-Nitroaniline	ND	5.0	97	97	0.0				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	81	82	1.2				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	76	77	1.3				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	82	93	12.6				30 - 130	20	
4-Chloroaniline	ND	3.5	82	82	0.0				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	73	73	0.0				30 - 130	20	
4-Nitroaniline	ND	5.0	85	80	6.1				30 - 130	20	
4-Nitrophenol	ND	1.0	87	87	0.0				15 - 130	20	
Acetophenone	ND	3.5	68	69	1.5				30 - 130	20	
Aniline	ND	3.5	63	63	0.0				30 - 130	20	
Benzidine	ND	4.5	36	36	0.0				30 - 130	20	
Benzoic acid	ND	10	59	92	43.7				30 - 130	20	r
Benzyl butyl phthalate	ND	1.5	83	24	110.3				30 - 130	20	l,r
Bis(2-chloroethoxy)methane	ND	3.5	66	66	0.0				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	51	53	3.8				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	46	50	8.3				30 - 130	20	
Carbazole	ND	5.0	85	85	0.0				30 - 130	20	
Diethyl phthalate	ND	1.5	80	78	2.5				30 - 130	20	
Dimethylphthalate	ND	1.5	80	75	6.5				30 - 130	20	
Di-n-butylphthalate	ND	1.5	83	80	3.7				30 - 130	20	
Di-n-octylphthalate	ND	1.5	84	82	2.4				30 - 130	20	
Isophorone	ND	3.5	70	76	8.2				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	46	50	8.3				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	73	78	6.6				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	71	56	23.6				30 - 130	20	r
Phenol	ND	1.0	53	50	5.8				15 - 130	20	
% 2,4,6-Tribromophenol	80	%	87	86	1.2				15 - 110	20	
% 2-Fluorobiphenyl	63	%	67	66	1.5				30 - 130	20	
% 2-Fluorophenol	42	%	42	42	0.0				15 - 110	20	
% Nitrobenzene-d5	63	%	67	67	0.0				30 - 130	20	
% Phenol-d5	53	%	48	23	70.4				15 - 110	20	r

QA/QC Data

SDG I.D.: GCA61339

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Terphenyl-d14	75	%		82	83	1.2				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.
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
June 11, 2018

Monday, June 11, 2018

Criteria: CT: RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA61339 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA61340	$8260GWR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	290	20	210	210	ug/L
CA61340	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	3.0	0.05	0.077	0.077	ug/L
CA61340	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.48	0.05	0.077	0.077	ug/L
CA61340	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	4.2	0.05	0.3	0.3	ug/L
CA61340	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.89	0.066	0.25	0.25	mg/L
CA61342	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.33	0.05	0.077	0.077	ug/L
CA61342	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.41	0.05	0.3	0.3	ug/L
CA61342	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.34	0.066	0.25	0.25	mg/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:***

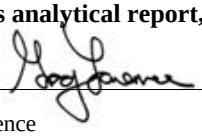
Laboratory Sample ID(s): CA61339-CA61344 ***Sampling Date(s):*** 5/30/2018

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, 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, June 11, 2018

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

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RCP Certification Report

June 11, 2018

SDG I.D.: GCA61339

Cyanide Narration

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

Instrument:

LACHAT 06/05/18-1 Dustin Harrison, Greg Danielewski, Chemist 06/05/18

CA61339, CA61340, CA61341, CA61342, CA61343

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 433119 (CA61339)

CA61339, CA61340, CA61341, CA61342, CA61343

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

ETPH Narration

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

Instrument:

AU-FID84 06/05/18-1 Jeff Bucko, Chemist 06/05/18

CA61339, CA61340, CA61341, CA61342, CA61343

The initial calibration (ETPH525I) 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 433110 (CA61339)

CA61339, CA61340, CA61341, CA61342, CA61343

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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June 11, 2018

SDG I.D.: GCA61339

Mercury Narration

MERLIN 05/31/18 07:48 Rick Schweitzer, Chemist 05/31/18

CA61342, CA61343

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 06/01/18 07:48 Rick Schweitzer, Chemist 06/01/18

CA61339, CA61340, CA61341

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 432639 (CA60946)

CA61342, CA61343

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

Batch 432640 (CA60561)

CA61339, CA61340, CA61341

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 06/01/18 07:05 Emily Kolominskaya, Mike Arsenault, Chemist 06/01/18

CA61339, CA61340, CA61341, CA61342, CA61343

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

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Certification Report

June 11, 2018

SDG I.D.: GCA61339

ICP Metals Narration

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 432731 (CA60713)

CA61339

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

Batch 432732 (CA61539)

CA61340, CA61341, CA61342, CA61343

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

ICPMS Metals Narration

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

Instrument:

ICPMS 06/01/18 16:00 Cindy Pearce, Phyllis Shiller, Chemist 06/01/18

CA61339, CA61340, CA61341, CA61342, CA61343

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 samples did not meet internal standard criteria: None.

QC (Site Specific):

Batch 432747 (CA61339)

CA61339, CA61340, CA61341, CA61342, CA61343

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

June 11, 2018

SDG I.D.: GCA61339

SVOA Narration

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

QC Batch 432741 (Samples: CA61339, CA61340, CA61341, CA61342): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s). A slight variability is possible. (1,2-Dichlorobenzene, 1,3-Dichlorobenzene, N-Nitrosodimethylamine, % 2-Fluorophenol)

QC Batch 433113 (Samples: CA61343): -----

The LCSD recovery is below the lower range but within the method criteria. The LCS is acceptable, therefore no significant bias is suspected. (Benzyl butyl phthalate)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s). A slight variability is possible. (1,2-Diphenylhydrazine, Benzoic acid, Benzyl butyl phthalate, N-Nitrosodiphenylamine, % Phenol-d5)

Instrument:

CHEM19 06/04/18-1 Damien Drobinski, Chemist 06/04/18

CA61339, CA61340, CA61341, CA61342

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_0525):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 23% (20%), Benzidine 23% (20%), Di-n-octylphthalate 24% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.073 (0.1), Bis(2-chloroethyl)ether 0.547 (0.7)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM19/0604_02-SPLIT_0525):
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 37%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.078 (0.1), Bis(2-chloroethoxy)methane 0.292 (0.3), Bis(2-chloroethyl)ether 0.418 (0.7)
The following compounds did not meet minimum response factors: None.

CHEM27 06/07/18-1 Damien Drobinski, Chemist 06/07/18

CA61343

Initial Calibration Verification (CHEM27/SPLIT_0518):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 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 (CHEM27/0607_02-SPLIT_0518):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

June 11, 2018

SDG I.D.: GCA61339

SVOA 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.

CHEM29 06/05/18-1 Damien Drobinski, Chemist 06/05/18

CA61340

Initial Calibration Verification (CHEM29/SPLIT_0530):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0605_02-SPLIT_0530):
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 432741 (CA61703)

CA61339, CA61340, CA61341, CA61342

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(26.1%), 1,2-Dichlorobenzene(21.3%), 1,3-Dichlorobenzene(20.7%), N-Nitrosodimethylamine(21.1%)
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 433113 (CA63410)

CA61343

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: Benzyl butyl phthalate(24%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % Phenol-d5(70.4%), 1,2-Diphenylhydrazine(84.2%), Benzoic acid(43.7%), Benzyl butyl phthalate(110.3%), N-Nitrosodiphenylamine(23.6%)
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%)

SVOASIM 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

June 11, 2018

SDG I.D.: GCA61339

SVOASIM Narration

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

QC Batch 432741 (Samples: CA61339, CA61340, CA61341, CA61342): -----

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(CA61340, CA61342))

Analyte was found in blank. A high bias is suspected. (Naphthalene(CA61339))

QC Batch 433113 (Samples: CA61343): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s). A slight variability is possible. (Benzo(a)pyrene, % Phenol-d5)

Instrument:

CHEM25 06/04/18-1 Damien Drobinski, Chemist 06/04/18

CA61339, CA61340, CA61341, CA61342

Initial Calibration Verification (CHEM25/SIM_0410):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.265 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0604_02-SIM_0410):
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: Hexachloroethane 0.264 (0.3)
The following compounds did not meet minimum response factors: None.

CHEM25 06/06/18-1 Damien Drobinski, Chemist 06/06/18

CA61343

Initial Calibration Verification (CHEM25/SIM_0410):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.265 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0606_02-SIM_0410):
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 432741 (CA61703)

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

June 11, 2018

SDG I.D.: GCA61339

SVOASIM Narration

CA61339, CA61340, CA61341, CA61342

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%)

Batch 433113 (CA63410)

CA61343

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: % Phenol-d5(56.7%), Benzo(a)pyrene(43.0%)
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 433222 (Samples: CA61339, CA61340, CA61341): -----

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)

QC Batch 433254 (Samples: CA61342, CA61343, CA61344): -----

The LCS/LCSD recovery for one analyte is below the lower range but within the method criteria. A low bias for this analyte is possible. (Acetone)

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. (Dichlorodifluoromethane)

The LCSD recovery is below the lower range but within the method criteria. The LCS recovery is acceptable. A slight low bias is possible. (Methyl ethyl ketone, Tetrahydrofuran (THF))

Instrument:

CHEM02 06/04/18-2 Michael Hahn, Chemist 06/04/18

CA61339, CA61340, CA61341

Initial Calibration Verification (CHEM02/VT-P0602):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%), Bromomethane 25% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.033 (0.05), Acetone 0.054 (0.1), Bromoform 0.086 (0.1), Methyl ethyl ketone 0.085 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0604P30-VT-P0602):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.

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

RCP Certification Report

June 11, 2018

SDG I.D.: GCA61339

VOA Narration

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 0.029 (0.05), Bromoform 0.083 (0.1), Tetrahydrofuran (THF) 0.046 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 06/04/18-1 Michael Hahn, Chemist 06/04/18

CA61342, CA61343, CA61344

Initial Calibration Verification (CHEM17/VT-S0603):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 40% (20%), Acetone 28% (20%), Methyl ethyl ketone 27% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.036 (0.05), Acetone 0.068 (0.1), Methyl ethyl ketone 0.091 (0.1), Tetrahydrofuran (THF) 0.048 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0604_02-VT-S0603):
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 0.036 (0.05), Tetrahydrofuran (THF) 0.039 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 433222 (CA63284)

CA61339, CA61340, CA61341

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(137%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(145%)
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%.

Batch 433254 (CA61344)

CA61342, CA61343, CA61344

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(55%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(55%), Dichlorodifluoromethane(136%), Methyl ethyl ketone(59%), Tetrahydrofuran (THF)(69%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

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

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

CHAIN OF CUSTODY RECORD

Temp 3.1°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/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwilley@fuss-board.com

Customer: Fuss & Board
Address: 293 Court St
Suite 1100
Middletown, CT

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Fuss & Board

Project P.O: 14755443

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 5/30/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	ETPH	SVOC	RCRA metals	Cyanide	GL Amber 8 oz. w/H3PO4	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 [ ] HCl	PL As is [ ] 250ml [ ] 500ml [ ] H2SO4	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/hypo	Bacteria Bottle as is
61339	MW-3BR	GW	5/30/18	10:25	X	X	X	X	X					3	3			1	1		
61340	MW-19D	GW	5/30/18	9:08	X	X	X	X	X					3	3			1	1		
61341	MW-23S	GW	5/30/18	9:25	X	X	X	X	X					3	3			1	1		
61342	MW-10BR	GW	5/30/18	12:57	X	X	X	X	X					3	3			1	1		
61343	EQ BLANK	GW	5/30/18	16:30	X	X	X	X	X					3	3			1	1		
61344	TRIP BLANK																				

Relinquished by:	Accepted by:	Date:	Time:
T+B		5/30/18	17:35

Comments, Special Requirements or Regulations:
Eversource 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 Res VC

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 Certain

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ 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 22
Page 889 of 1282

PHOENIX
Environmental Laboratories, Inc.

Thursday, June 07, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA58993 - CA59005

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

NY # 11301

SDG Comments

June 07, 2018

SDG I.D.: GCA58993

Volatile 8260 analysis:
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

June 07, 2018

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:		05/24/18	10:22
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58993

Project ID: ROCKVILLE MGP
Client ID: MW-1S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.273	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.015	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/25/18	MA	SW7470A
Nickel	0.006	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/29/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/25/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.079	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1S

Phoenix I.D.: CA58993

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trimethylbenzene	1.4	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/26/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/26/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1S

Phoenix I.D.: CA58993

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Naphthalene	1.4	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/26/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	1	05/26/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/26/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	05/26/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/26/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1S

Phoenix I.D.: CA58993

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	78		%	1	05/31/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	05/31/18	KCA	30 - 130 %
% 2-Fluorophenol	58		%	1	05/31/18	KCA	15 - 110 %
% Nitrobenzene-d5	72		%	1	05/31/18	KCA	30 - 130 %
% Phenol-d5	60		%	1	05/31/18	KCA	15 - 110 %
% Terphenyl-d14	80		%	1	05/31/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	6.8	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	0.63	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	0.10	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	0.26	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	0.35	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1S

Phoenix I.D.: CA58993

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	0.15	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	0.29	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	100		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	70		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	73		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	73		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	69		%	1	05/31/18	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 C36. 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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	8:57
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58994

Project ID: ROCKVILLE MGP
Client ID: MW-1D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.321	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.683	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	0.219	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/25/18	MA	SW7470A
Nickel	5.67	0.010	mg/L	10	05/30/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.048	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/29/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/25/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1D

Phoenix I.D.: CA58994

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/26/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/26/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1D

Phoenix I.D.: CA58994

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/26/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	05/26/18	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	05/26/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	05/26/18	MH	70 - 130 %
% Toluene-d8	94		%	1	05/26/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1D

Phoenix I.D.: CA58994

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	62		%	1	05/31/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	05/31/18	KCA	30 - 130 %
% 2-Fluorophenol	53		%	1	05/31/18	KCA	15 - 110 %
% Nitrobenzene-d5	68		%	1	05/31/18	KCA	30 - 130 %
% Phenol-d5	56		%	1	05/31/18	KCA	15 - 110 %
% Terphenyl-d14	77		%	1	05/31/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-1D

Phoenix I.D.: CA58994

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	100		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	76		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	73		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	67		%	1	05/31/18	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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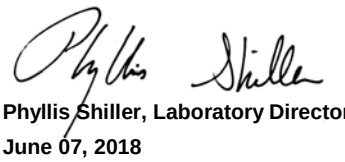


Phyllis Shiller, Laboratory Director
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	9:00
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58995

Project ID: ROCKVILLE MGP
Client ID: MW-3S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.048	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.006	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.028	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1.0	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3S

Phoenix I.D.: CA58995

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trimethylbenzene	21	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3,5-Trimethylbenzene	11	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/26/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Benzene	45	14	ug/L	20	05/27/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Ethylbenzene	60	20	ug/L	20	05/27/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Isopropylbenzene	2.7	1.0	ug/L	1	05/26/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3S

Phoenix I.D.: CA58995

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	87	20	ug/L	20	05/27/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Naphthalene	210	20	ug/L	20	05/27/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
o-Xylene	69	20	ug/L	20	05/27/18	MH	SW8260C
p-Isopropyltoluene	1.4	1.0	ug/L	1	05/26/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Styrene	5.8	1.0	ug/L	1	05/26/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/26/18	MH	SW8260C
Toluene	86	20	ug/L	20	05/27/18	MH	SW8260C
Total Xylenes	156	20	ug/L	20	05/27/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/26/18	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	05/26/18	MH	70 - 130 %
% Dibromofluoromethane	105		%	1	05/26/18	MH	70 - 130 %
% Toluene-d8	95		%	1	05/26/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dimethylphenol	8.3	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Methylphenol (o-cresol)	1.2	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3S

Phoenix I.D.: CA58995

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D	
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D	
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D	
Acetophenone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Aniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Benzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Benzoic acid	ND	47	ug/L	1	05/31/18	KCA	SW8270D	
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D	
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Carbazole	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Isophorone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D	
Phenol	8.2	0.94	ug/L	1	05/31/18	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	116		%	1	05/31/18	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	76		%	1	05/31/18	KCA	30 - 130 %	
% 2-Fluorophenol	50		%	1	05/31/18	KCA	15 - 110 %	
% Nitrobenzene-d5	72		%	1	05/31/18	KCA	30 - 130 %	
% Phenol-d5	54		%	1	05/31/18	KCA	15 - 110 %	
% Terphenyl-d14	77		%	1	05/31/18	KCA	30 - 130 %	
Semivolatiles (SIM)								
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Acenaphthene	2.6	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Acenaphthylene	1.3	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Anthracene	0.58	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Benz(a)anthracene	0.20	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Benzo(a)pyrene	0.39	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Benzo(b)fluoranthene	0.23	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Benzo(ghi)perylene	0.24	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Benzo(k)fluoranthene	0.29	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Chrysene	0.24	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Dibenz(a,h)anthracene	0.05	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Fluoranthene	0.42	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Fluorene	0.25	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3S

Phoenix I.D.: CA58995

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	0.18	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Naphthalene	0.25	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Phenanthrene	0.07	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pyrene	0.71	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	113		%	1	05/31/18	DD	15 - 110 %	3
% 2-Fluorobiphenyl	71		%	1	05/31/18	DD	30 - 130 %	
% 2-Fluorophenol	61		%	1	05/31/18	DD	15 - 110 %	
% Nitrobenzene-d5	76		%	1	05/31/18	DD	30 - 130 %	
% Phenol-d5	67		%	1	05/31/18	DD	15 - 110 %	
% Terphenyl-d14	76		%	1	05/31/18	DD	30 - 130 %	

3 = This parameter exceeds laboratory specified limits.

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

Comments:

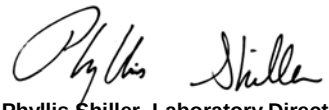
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

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:
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.

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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	10:40
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58996

Project ID: ROCKVILLE MGP
Client ID: MW-7S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.329	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	1.0	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7S

Phoenix I.D.: CA58996

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2,4-Trimethylbenzene	27	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/26/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3,5-Trimethylbenzene	1.5	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/26/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Benzene	2.0	0.70	ug/L	1	05/26/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/26/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Ethylbenzene	11	1.0	ug/L	1	05/26/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
Isopropylbenzene	11	1.0	ug/L	1	05/26/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7S

Phoenix I.D.: CA58996

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	8.5	1.0	ug/L	1	05/26/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Naphthalene	160	20	ug/L	20	05/27/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
n-Propylbenzene	1.6	1.0	ug/L	1	05/26/18	MH	SW8260C
o-Xylene	46	20	ug/L	20	05/27/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/26/18	MH	SW8260C
Toluene	1.8	1.0	ug/L	1	05/26/18	MH	SW8260C
Total Xylenes	54.5	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/26/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/26/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/26/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/26/18	MH	70 - 130 %
% Bromofluorobenzene	91		%	1	05/26/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	05/26/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/26/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7S

Phoenix I.D.: CA58996

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Acenaphthene	21	4.7	ug/L	1	05/31/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Naphthalene	130	47	ug/L	10	06/01/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	65		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	52		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	75		%	1	05/31/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	2.4	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	0.57	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	0.19	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	0.22	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.11	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.13	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	0.22	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.03	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	0.87	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	0.41	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7S

Phoenix I.D.: CA58996

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	3.6	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.11	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	1.8	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	0.67	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	110		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	69		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	62		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	69		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	15:35
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58997

Project ID: ROCKVILLE MGP
Client ID: MW-9S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.177	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	0.062	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	4.5	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9S

Phoenix I.D.: CA58997

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
1,1,1-Trichloroethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
1,1-Dichloroethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,1-Dichloroethene	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
1,1-Dichloropropene	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,2,3-Trichloropropane	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	9.6	ug/L	10	05/29/18	HM	SW8260C
1,2,4-Trimethylbenzene	180	10	ug/L	10	05/29/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
1,2-Dibromoethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
1,2-Dichlorobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,2-Dichloroethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
1,2-Dichloropropane	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
1,3,5-Trimethylbenzene	62	10	ug/L	10	05/29/18	HM	SW8260C
1,3-Dichlorobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,3-Dichloropropane	ND	10	ug/L	10	05/29/18	HM	SW8260C
1,4-Dichlorobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
2,2-Dichloropropane	ND	10	ug/L	10	05/29/18	HM	SW8260C
2-Chlorotoluene	ND	10	ug/L	10	05/29/18	HM	SW8260C
2-Hexanone	ND	35	ug/L	10	05/29/18	HM	SW8260C
2-Isopropyltoluene	ND	10	ug/L	10	05/29/18	HM	SW8260C
4-Chlorotoluene	ND	10	ug/L	10	05/29/18	HM	SW8260C
4-Methyl-2-pentanone	ND	50	ug/L	10	05/29/18	HM	SW8260C
Acetone	ND	250	ug/L	10	05/29/18	HM	SW8260C
Acrylonitrile	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
Benzene	31	7.0	ug/L	10	05/29/18	HM	SW8260C
Bromobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
Bromochloromethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
Bromodichloromethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
Bromoform	ND	4.0	ug/L	10	05/29/18	HM	SW8260C
Bromomethane	ND	3.5	ug/L	10	05/29/18	HM	SW8260C
Carbon Disulfide	ND	40	ug/L	10	05/29/18	HM	SW8260C
Carbon tetrachloride	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
Chlorobenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
Chloroethane	ND	7.4	ug/L	10	05/29/18	HM	SW8260C
Chloroform	ND	6.0	ug/L	10	05/29/18	HM	SW8260C
Chloromethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	10	ug/L	10	05/29/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	4.0	ug/L	10	05/29/18	HM	SW8260C
Dibromochloromethane	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
Dibromomethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
Dichlorodifluoromethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
Ethylbenzene	500	50	ug/L	50	05/29/18	HM	SW8260C
Hexachlorobutadiene	ND	4.0	ug/L	10	05/29/18	HM	SW8260C
Isopropylbenzene	36	10	ug/L	10	05/29/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9S

Phoenix I.D.: CA58997

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	130	10	ug/L	10	05/29/18	HM	SW8260C
Methyl ethyl ketone	ND	50	ug/L	10	05/29/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/L	10	05/29/18	HM	SW8260C
Methylene chloride	ND	10	ug/L	10	05/29/18	HM	SW8260C
Naphthalene	1600	100	ug/L	100	05/30/18	HM	SW8260C
n-Butylbenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
n-Propylbenzene	15	10	ug/L	10	05/29/18	HM	SW8260C
o-Xylene	240	10	ug/L	10	05/29/18	HM	SW8260C
p-Isopropyltoluene	ND	10	ug/L	10	05/29/18	HM	SW8260C
sec-Butylbenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
Styrene	ND	10	ug/L	10	05/29/18	HM	SW8260C
tert-Butylbenzene	ND	10	ug/L	10	05/29/18	HM	SW8260C
Tetrachloroethene	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	25	ug/L	10	05/29/18	HM	SW8260C
Toluene	27	10	ug/L	10	05/29/18	HM	SW8260C
Total Xylenes	370	10	ug/L	10	05/29/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	10	ug/L	10	05/29/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	4.0	ug/L	10	05/29/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	50	ug/L	10	05/29/18	HM	SW8260C
Trichloroethene	ND	5.0	ug/L	10	05/29/18	HM	SW8260C
Trichlorofluoromethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
Trichlorotrifluoroethane	ND	10	ug/L	10	05/29/18	HM	SW8260C
Vinyl chloride	ND	2.5	ug/L	10	05/29/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	10	05/29/18	HM	70 - 130 %
% Bromofluorobenzene	95		%	10	05/29/18	HM	70 - 130 %
% Dibromofluoromethane	101		%	10	05/29/18	HM	70 - 130 %
% Toluene-d8	98		%	10	05/29/18	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	17	ug/L	10	05/31/18	DD	SW8270D
1,2,4-Trichlorobenzene	ND	14	ug/L	10	05/31/18	DD	SW8270D
1,2-Dichlorobenzene	ND	47	ug/L	10	05/31/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	15	ug/L	10	05/31/18	DD	SW8270D
1,3-Dichlorobenzene	ND	47	ug/L	10	05/31/18	DD	SW8270D
1,4-Dichlorobenzene	ND	47	ug/L	10	05/31/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	28	ug/L	10	05/31/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	8.5	ug/L	10	05/31/18	DD	SW8270D
2,4-Dichlorophenol	ND	20	ug/L	10	05/31/18	DD	SW8270D
2,4-Dimethylphenol	ND	47	ug/L	10	05/31/18	DD	SW8270D
2,4-Dinitrophenol	ND	14	ug/L	10	05/31/18	DD	SW8270D
2,4-Dinitrotoluene	ND	18	ug/L	10	05/31/18	DD	SW8270D
2,6-Dinitrotoluene	ND	15	ug/L	10	05/31/18	DD	SW8270D
2-Chloronaphthalene	ND	47	ug/L	10	05/31/18	DD	SW8270D
2-Chlorophenol	ND	36	ug/L	10	05/31/18	DD	SW8270D
2-Methylnaphthalene	160	47	ug/L	10	05/31/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	47	ug/L	10	05/31/18	DD	SW8270D
2-Nitroaniline	ND	33	ug/L	10	05/31/18	DD	SW8270D
2-Nitrophenol	ND	47	ug/L	10	05/31/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	47	ug/L	10	05/31/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9S

Phoenix I.D.: CA58997

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	22	ug/L	10	05/31/18	DD	SW8270D
3-Nitroaniline	ND	19	ug/L	10	05/31/18	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	10	ug/L	10	05/31/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	47	ug/L	10	05/31/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	47	ug/L	10	05/31/18	DD	SW8270D
4-Chloroaniline	ND	19	ug/L	10	05/31/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	47	ug/L	10	05/31/18	DD	SW8270D
4-Nitroaniline	ND	16	ug/L	10	05/31/18	DD	SW8270D
4-Nitrophenol	ND	47	ug/L	10	05/31/18	DD	SW8270D
Acenaphthene	100	47	ug/L	10	05/31/18	DD	SW8270D
Acenaphthylene	ND	13	ug/L	10	05/31/18	DD	SW8270D
Acetophenone	ND	47	ug/L	10	05/31/18	DD	SW8270D
Aniline	ND	9.4	ug/L	10	05/31/18	DD	SW8270D
Anthracene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Benz(a)anthracene	ND	16	ug/L	10	05/31/18	DD	SW8270D
Benzidine	ND	28	ug/L	10	05/31/18	DD	SW8270D
Benzo(a)pyrene	ND	15	ug/L	10	05/31/18	DD	SW8270D
Benzo(b)fluoranthene	ND	16	ug/L	10	05/31/18	DD	SW8270D
Benzo(ghi)perylene	ND	15	ug/L	10	05/31/18	DD	SW8270D
Benzo(k)fluoranthene	ND	16	ug/L	10	05/31/18	DD	SW8270D
Benzoic acid	ND	94	ug/L	10	05/31/18	DD	SW8270D
Benzyl butyl phthalate	ND	47	ug/L	10	05/31/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	21	ug/L	10	05/31/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	13	ug/L	10	05/31/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	13	ug/L	10	05/31/18	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	14	ug/L	10	05/31/18	DD	SW8270D
Carbazole	50	47	ug/L	10	05/31/18	DD	SW8270D
Chrysene	ND	16	ug/L	10	05/31/18	DD	SW8270D
Dibenz(a,h)anthracene	ND	15	ug/L	10	05/31/18	DD	SW8270D
Dibenzofuran	ND	47	ug/L	10	05/31/18	DD	SW8270D
Diethyl phthalate	ND	47	ug/L	10	05/31/18	DD	SW8270D
Dimethylphthalate	ND	47	ug/L	10	05/31/18	DD	SW8270D
Di-n-butylphthalate	ND	47	ug/L	10	05/31/18	DD	SW8270D
Di-n-octylphthalate	ND	47	ug/L	10	05/31/18	DD	SW8270D
Fluoranthene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Fluorene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Hexachlorobenzene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Hexachlorobutadiene	ND	17	ug/L	10	05/31/18	DD	SW8270D
Hexachlorocyclopentadiene	ND	14	ug/L	10	05/31/18	DD	SW8270D
Hexachloroethane	ND	14	ug/L	10	05/31/18	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	16	ug/L	10	05/31/18	DD	SW8270D
Isophorone	ND	37	ug/L	10	05/31/18	DD	SW8270D
Naphthalene	1200	470	ug/L	100	06/01/18	DD	SW8270D
Nitrobenzene	ND	16	ug/L	10	05/31/18	DD	SW8270D
N-Nitrosodimethylamine	ND	13	ug/L	10	05/31/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	15	ug/L	10	05/31/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	18	ug/L	10	05/31/18	DD	SW8270D
Pentachloronitrobenzene	ND	17	ug/L	10	05/31/18	DD	SW8270D
Pentachlorophenol	ND	8.5	ug/L	10	05/31/18	DD	SW8270D

Project ID: ROCKVILLE MGP
Client ID: MW-9S

Phoenix I.D.: CA58997

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Phenol	ND	47	ug/L	10	05/31/18	DD	SW8270D
Pyrene	ND	47	ug/L	10	05/31/18	DD	SW8270D
Pyridine	ND	12	ug/L	10	05/31/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	Diluted Out		%	10	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	Diluted Out		%	10	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	Diluted Out		%	10	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	Diluted Out		%	10	05/31/18	DD	30 - 130 %
% Phenol-d5	Diluted Out		%	10	05/31/18	DD	15 - 110 %
% Terphenyl-d14	Diluted Out		%	10	05/31/18	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.

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 C26. 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:
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.

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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	12:25
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58998

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	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.069	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Phoenix I.D.: CA58998

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Acetone	ND	25	ug/L	1	05/30/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	05/30/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Phoenix I.D.: CA58998

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/30/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	05/30/18	HM	70 - 130 %
% Bromofluorobenzene	95		%	1	05/30/18	HM	70 - 130 %
% Dibromofluoromethane	102		%	1	05/30/18	HM	70 - 130 %
% Toluene-d8	98		%	1	05/30/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Phoenix I.D.: CA58998

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	58		%	1	05/31/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/31/18	KCA	30 - 130 %
% 2-Fluorophenol	45		%	1	05/31/18	KCA	15 - 110 %
% Nitrobenzene-d5	63		%	1	05/31/18	KCA	30 - 130 %
% Phenol-d5	51		%	1	05/31/18	KCA	15 - 110 %
% Terphenyl-d14	73		%	1	05/31/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	0.65	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-19S

Phoenix I.D.: CA58998

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	0.14	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	53		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	48		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	67		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	57		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	63		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	13:50
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA58999

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	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.223	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: CA58999

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/29/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/29/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: CA58999

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/29/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/29/18	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	05/29/18	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	05/29/18	MH	70 - 130 %
% Toluene-d8	99		%	1	05/29/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	KCA	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	KCA	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: CA58999

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	KCA	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	KCA	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	54		%	1	05/31/18	KCA	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	05/31/18	KCA	30 - 130 %
% 2-Fluorophenol	43		%	1	05/31/18	KCA	15 - 110 %
% Nitrobenzene-d5	59		%	1	05/31/18	KCA	30 - 130 %
% Phenol-d5	44		%	1	05/31/18	KCA	15 - 110 %
% Terphenyl-d14	77		%	1	05/31/18	KCA	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-21S

Phoenix I.D.: CA58999

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	0.40	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	0.06	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	57		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	48		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	63		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	15:47
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59000

Project ID: ROCKVILLE MGP
Client ID: MW-10M

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.110	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.003	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.013	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.010	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10M

Phoenix I.D.: CA59000

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/29/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/29/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10M

Phoenix I.D.: CA59000

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Naphthalene	2.2	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/29/18	MH	SW8260C
Toluene	1.4	1.0	ug/L	1	05/29/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/29/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/29/18	MH	70 - 130 %
% Dibromofluoromethane	100		%	1	05/29/18	MH	70 - 130 %
% Toluene-d8	99		%	1	05/29/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10M

Phoenix I.D.: CA59000

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	53		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	89		%	1	05/31/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	0.10	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	0.06	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	0.26	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10M

Phoenix I.D.: CA59000

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	0.25	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	53		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	73		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	62		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	70		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	14:04
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59001

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	05/29/18	MA	SW6010C	
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C	
Barium	0.012	0.002	mg/L	1	05/29/18	MA	SW6010C	
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C	
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C	
Chromium	0.037	0.001	mg/L	1	05/29/18	MA	SW6010C	
Copper	0.016	0.005	mg/L	1	05/29/18	MA	SW6010C	
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A	
Nickel	0.060	0.001	mg/L	1	05/29/18	MA	SW6010C	
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C	
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C	
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C	
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B	
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C	
Zinc	0.014	0.002	mg/L	1	05/29/18	MA	SW6010C	
Total Cyanide	0.069	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B	
Extraction of CT ETPH	Completed				05/31/18	P/R	SW3510C/SW3520C	
Mercury Digestion	Completed				05/30/18	I/I	SW7470A	
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C	
Total Metals Digestion	Completed				05/26/18	AG		
Total Metals Digestion MS	Completed				05/25/18	AG		
TPH by GC (Extractable Products)								
Ext. Petroleum H.C. (C9-C36)	0.16	0.066	mg/L	1	06/04/18	JRB	CTETPH 8015D	
Identification	**		mg/L	1	06/04/18	JRB	CTETPH 8015D	
QA/QC Surrogates								
% n-Pentacosane	31		%	1	06/04/18	JRB	50 - 150 %	3

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CA59001

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,4-Trimethylbenzene	3.1	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/27/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Benzene	53	7.0	ug/L	10	05/29/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Ethylbenzene	21	1.0	ug/L	1	05/27/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
Isopropylbenzene	1.6	1.0	ug/L	1	05/27/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CA59001

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	6.5	1.0	ug/L	1	05/27/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Naphthalene	97	10	ug/L	10	05/29/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
o-Xylene	11	1.0	ug/L	1	05/27/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Styrene	2.0	1.0	ug/L	1	05/27/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/27/18	MH	SW8260C
Toluene	33	10	ug/L	10	05/29/18	MH	SW8260C
Total Xylenes	17.5	1.0	ug/L	1	05/27/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/27/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/27/18	MH	70 - 130 %
% Dibromofluoromethane	106		%	1	05/27/18	MH	70 - 130 %
% Toluene-d8	97		%	1	05/27/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CA59001

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Naphthalene	18	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	79		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	70		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	55		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	64		%	1	05/31/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	1.5	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	1.6	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	0.09	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CA59001

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	0.29	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	0.11	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	110		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	61		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	83		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	70		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	63		%	1	05/31/18	DD	30 - 130 %

3 = This parameter exceeds laboratory specified limits.

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

Comments:

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

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.

TPH: Comment
The surrogate recovery was slightly below acceptance criteria for the ETPH analysis. The sample was re-analyzed with similar results. A slight negative bias cannot be ruled out.

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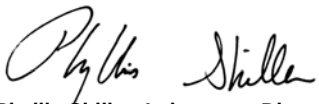

Phyllis Shiller, Laboratory Director
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	12:44
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59002

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	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.215	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.013	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.497	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.054	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	0.014	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	59		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CA59002

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/29/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/29/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CA59002

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/29/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	05/29/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/29/18	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	05/29/18	MH	70 - 130 %
% Toluene-d8	98		%	1	05/29/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/31/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/31/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CA59002

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/31/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/31/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/31/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	72		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	82		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	60		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	76		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	62		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	91		%	1	05/31/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	0.10	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CA59002

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	0.57	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	108		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	59		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	82		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	70		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	77		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	14:50
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59003

Project ID: ROCKVILLE MGP
Client ID: MW-9D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.294	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.674	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	0.022	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.372	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/29/18	CPP	SW6020B
Vanadium	0.004	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.006	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/25/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9D

Phoenix I.D.: CA59003

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/30/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Acetone	ND	25	ug/L	1	05/30/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	05/30/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/30/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9D

Phoenix I.D.: CA59003

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/30/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/30/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/30/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/30/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/30/18	HM	70 - 130 %
% Bromofluorobenzene	93		%	1	05/30/18	HM	70 - 130 %
% Dibromofluoromethane	100		%	1	05/30/18	HM	70 - 130 %
% Toluene-d8	98		%	1	05/30/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/01/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9D

Phoenix I.D.: CA59003

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	06/01/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	78		%	1	06/01/18	DD	15 - 110 %
% 2-Fluorobiphenyl	76		%	1	06/01/18	DD	30 - 130 %
% 2-Fluorophenol	50		%	1	06/01/18	DD	15 - 110 %
% Nitrobenzene-d5	65		%	1	06/01/18	DD	30 - 130 %
% Phenol-d5	54		%	1	06/01/18	DD	15 - 110 %
% Terphenyl-d14	85		%	1	06/01/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	0.08	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	0.07	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.05	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.05	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	0.08	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	0.07	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-9D

Phoenix I.D.: CA59003

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyrene	0.13	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	05/31/18	DD	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	05/31/18	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	05/31/18	DD	15 - 110 %
% Nitrobenzene-d5	80		%	1	05/31/18	DD	30 - 130 %
% Phenol-d5	65		%	1	05/31/18	DD	15 - 110 %
% Terphenyl-d14	70		%	1	05/31/18	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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	15:48
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59004

Project ID: ROCKVILLE MGP
Client ID: MW-DUP 2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/29/18	MA	SW6010C
Barium	0.111	0.002	mg/L	1	05/29/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/29/18	MA	SW6010C
Chromium	0.003	0.001	mg/L	1	05/29/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/30/18	RS	SW7470A
Nickel	0.014	0.001	mg/L	1	05/29/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/29/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/29/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/29/18	MA	SW6010C
Zinc	0.010	0.002	mg/L	1	05/29/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/30/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/30/18	I/I	SW7470A
Semi-Volatile Extraction	Completed				05/29/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/26/18	AG	
Total Metals Digestion MS	Completed				05/29/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/31/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/31/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	05/31/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP 2

Phoenix I.D.: CA59004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/29/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/29/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/29/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/29/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP 2

Phoenix I.D.: CA59004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Naphthalene	1.7	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/29/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/29/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/29/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/29/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	05/29/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/29/18	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	05/29/18	MH	70 - 130 %
% Toluene-d8	98		%	1	05/29/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/01/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/01/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP 2

Phoenix I.D.: CA59004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	06/01/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/01/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	06/01/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	06/01/18	DD	15 - 110 %
% 2-Fluorobiphenyl	82		%	1	06/01/18	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	06/01/18	DD	15 - 110 %
% Nitrobenzene-d5	72		%	1	06/01/18	DD	30 - 130 %
% Phenol-d5	48		%	1	06/01/18	DD	15 - 110 %
% Terphenyl-d14	89		%	1	06/01/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Acenaphthylene	0.06	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/31/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/31/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP 2

Phoenix I.D.: CA59004

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachlorobenzene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Hexachloroethane	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Naphthalene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Nitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pentachlorophenol	ND	0.75	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Phenanthrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pyrene	ND	0.05	ug/L	1	05/31/18	DD	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	05/31/18	DD	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	111		%	1	05/31/18	DD	15 - 110 %	3
% 2-Fluorobiphenyl	75		%	1	05/31/18	DD	30 - 130 %	
% 2-Fluorophenol	64		%	1	05/31/18	DD	15 - 110 %	
% Nitrobenzene-d5	83		%	1	05/31/18	DD	30 - 130 %	
% Phenol-d5	59		%	1	05/31/18	DD	15 - 110 %	
% Terphenyl-d14	78		%	1	05/31/18	DD	30 - 130 %	

3 = This parameter exceeds laboratory specified limits.

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

Comments:

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

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:
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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

Analysis Report

June 07, 2018

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:		05/24/18	
Location Code:	TIGHE-DAS	Received by:	LB	05/24/18	17:59
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA58993
Phoenix ID: CA59005

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	05/27/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/27/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA59005

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	05/27/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/27/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/27/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/27/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/27/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/27/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/27/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	05/27/18	MH	70 - 130 %
% Bromofluorobenzene	92		%	1	05/27/18	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	05/27/18	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA59005

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	97		%	1	05/27/18	MH	70 - 130 %

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

Comments:

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
June 07, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

QA/QC Report

June 07, 2018

QA/QC Data

SDG I.D.: GCA58993

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 432263 (mg/L), QC Sample No: CA58594 (CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	99.6			99.5			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	102			100			75 - 125	20
Barium	BRL	0.002	0.009	0.009	NC	104			102			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	104			100			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	105			103			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	104			102			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	100			100			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	105			102			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	106			103			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	97.7			95.4			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	98.9			97.1			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	101			101			75 - 125	20
Zinc	BRL	0.002	0.002	0.002	NC	102			100			75 - 125	20
QA/QC Batch 432187 (mg/L), QC Sample No: CA58912 5X (CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0015	<0.0005	<0.0015	NC	103			97.4			75 - 125	20
QA/QC Batch 432054 (mg/L), QC Sample No: CA58955 (CA58993, CA58994)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	83.2			87.3			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 432060 (mg/L), QC Sample No: CA58995 (CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	98.3			90.6			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 432375 (mg/L), QC Sample No: CA59645 5X (CA59004)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0015	<0.0005	<0.0015	NC	94.8			97.4			75 - 125	20

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

June 07, 2018

QA/QC Data

SDG I.D.: GCA58993

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 432201 (mg/L), QC Sample No: CA52316 (CA58993, CA58994)														
Total Cyanide	BRL	0.010	0.071	0.068	4.30	93.1			70.1			90 - 110	20	m
Comment:														
Cyanide blank spike recovery was 104 %.														
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils														
QA/QC Batch 432575 (mg/L), QC Sample No: CA58995 (CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)														
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	93.5			104			90 - 110	20	
Comment:														
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils														

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

Environmental Laboratories, Inc.
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QA/QC Report

June 07, 2018

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 432353 (ug/L), QC Sample No: CA58912 (CA58995 (20X))										
Volatiles - Ground Water										
Benzene	ND	0.70	105	102	2.9				70 - 130	30
Ethylbenzene	ND	1.0	106	104	1.9				70 - 130	30
m&p-Xylene	ND	1.0	104	101	2.9				70 - 130	30
Naphthalene	ND	1.0	110	120	8.7				70 - 130	30
o-Xylene	ND	1.0	108	104	3.8				70 - 130	30
Toluene	ND	1.0	109	106	2.8				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 432382 (ug/L), QC Sample No: CA58993 (CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.50	63	64	1.6				30 - 130	20
2-Methylnaphthalene	ND	0.02	63	65	3.1				30 - 130	20
Acenaphthene	ND	0.02	74	74	0.0				30 - 130	20
Acenaphthylene	ND	0.02	67	66	1.5				30 - 130	20
Anthracene	ND	0.02	75	73	2.7				30 - 130	20
Benz(a)anthracene	ND	0.02	80	77	3.8				30 - 130	20
Benzo(a)pyrene	ND	0.02	70	69	1.4				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	79	76	3.9				30 - 130	20
Benzo(ghi)perylene	ND	0.02	68	72	5.7				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	81	78	3.8				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	101	89	12.6				30 - 130	20
Chrysene	ND	0.02	79	75	5.2				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	73	81	10.4				30 - 130	20
Dibenzofuran	ND	0.05	68	67	1.5				30 - 130	20
Fluoranthene	ND	0.02	77	76	1.3				30 - 130	20
Fluorene	ND	0.02	73	71	2.8				30 - 130	20
Hexachlorobenzene	ND	0.02	75	72	4.1				30 - 130	20
Hexachlorobutadiene	ND	0.05	53	57	7.3				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	30	35	15.4				30 - 130	20
Hexachloroethane	ND	0.05	64	72	11.8				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	69	73	5.6				30 - 130	20
Naphthalene	ND	0.1	59	63	6.6				30 - 130	20
Nitrobenzene	ND	0.05	82	90	9.3				30 - 130	20
Pentachloronitrobenzene	ND	0.10	105	101	3.9				30 - 130	20
Pentachlorophenol	ND	0.20	99	104	4.9				30 - 130	20
Phenanthrene	ND	0.02	74	72	2.7				30 - 130	20
Pyrene	ND	0.02	80	79	1.3				30 - 130	20
Pyridine	ND	0.50	45	52	14.4				30 - 130	20

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% 2,4,6-Tribromophenol	72	%		84	83	1.2				15 - 110	20
% 2-Fluorobiphenyl	62	%		64	66	3.1				30 - 130	20
% 2-Fluorophenol	52	%		37	41	10.3				15 - 110	20
% Nitrobenzene-d5	87	%		73	78	6.6				30 - 130	20
% Phenol-d5	70	%		54	57	5.4				15 - 110	20
% Terphenyl-d14	73	%		76	75	1.3				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%)

QA/QC Batch 432382 (ug/L), QC Sample No: CA58993 (CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)

Semivolatiles - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	3.5		68	73	7.1				30 - 130	20
1,2,4-Trichlorobenzene	ND	3.5		60	65	8.0				30 - 130	20
1,2-Dichlorobenzene	ND	1.0		56	60	6.9				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6		82	79	3.7				30 - 130	20
1,3-Dichlorobenzene	ND	1.0		55	63	13.6				30 - 130	20
1,4-Dichlorobenzene	ND	1.0		54	62	13.8				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0		85	84	1.2				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0		81	82	1.2				30 - 130	20
2,4-Dichlorophenol	ND	1.0		68	63	7.6				30 - 130	20
2,4-Dimethylphenol	ND	1.0		75	69	8.3				30 - 130	20
2,4-Dinitrophenol	ND	1.0		83	86	3.6				30 - 130	20
2,4-Dinitrotoluene	ND	3.5		91	90	1.1				30 - 130	20
2,6-Dinitrotoluene	ND	3.5		91	87	4.5				30 - 130	20
2-Chloronaphthalene	ND	3.5		76	77	1.3				30 - 130	20
2-Chlorophenol	ND	1.0		53	60	12.4				30 - 130	20
2-Methylnaphthalene	ND	3.5		67	72	7.2				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0		59	51	14.5				30 - 130	20
2-Nitroaniline	ND	3.5		119	110	7.9				30 - 130	20
2-Nitrophenol	ND	1.0		67	74	9.9				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0		67	62	7.8				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0		96	94	2.1				30 - 130	20
3-Nitroaniline	ND	5.0		95	91	4.3				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0		88	87	1.1				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5		85	81	4.8				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0		80	81	1.2				30 - 130	20
4-Chloroaniline	ND	3.5		69	71	2.9				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0		87	85	2.3				30 - 130	20
4-Nitroaniline	ND	5.0		80	77	3.8				30 - 130	20
4-Nitrophenol	ND	1.0		89	81	9.4				15 - 130	20
Acenaphthene	ND	1.5		85	86	1.2				30 - 130	20
Acenaphthylene	ND	3.5		77	76	1.3				30 - 130	20
Acetophenone	ND	3.5		66	65	1.5				30 - 130	20
Aniline	ND	3.5		55	60	8.7				30 - 130	20
Anthracene	ND	1.5		88	84	4.7				30 - 130	20
Benz(a)anthracene	ND	1.5		90	85	5.7				30 - 130	20
Benzidine	ND	4.5		110	116	5.3				30 - 130	20
Benzo(a)pyrene	ND	1.5		81	76	6.4				30 - 130	20
Benzo(b)fluoranthene	ND	1.5		91	86	5.6				30 - 130	20
Benzo(ghi)perylene	ND	1.5		92	80	14.0				30 - 130	20
Benzo(k)fluoranthene	ND	1.5		95	89	6.5				30 - 130	20

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzoic acid	ND	10	36	34	5.7				30 - 130	20
Benzyl butyl phthalate	ND	1.5	85	82	3.6				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	65	60	8.0				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	49	57	15.1				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	43	37	15.0				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	1.5	84	83	1.2				30 - 130	20
Carbazole	ND	5.0	93	88	5.5				30 - 130	20
Chrysene	ND	1.5	93	88	5.5				30 - 130	20
Dibenz(a,h)anthracene	ND	1.5	101	89	12.6				30 - 130	20
Dibenzofuran	ND	3.5	84	83	1.2				30 - 130	20
Diethyl phthalate	ND	1.5	91	88	3.4				30 - 130	20
Dimethylphthalate	ND	1.5	87	84	3.5				30 - 130	20
Di-n-butylphthalate	ND	1.5	88	86	2.3				30 - 130	20
Di-n-octylphthalate	ND	1.5	90	88	2.2				30 - 130	20
Fluoranthene	ND	1.5	92	86	6.7				30 - 130	20
Fluorene	ND	1.5	88	86	2.3				30 - 130	20
Hexachlorobenzene	ND	3.5	88	84	4.7				30 - 130	20
Hexachlorobutadiene	ND	3.5	61	71	15.2				30 - 130	20
Hexachlorocyclopentadiene	ND	3.5	30	34	12.5				30 - 130	20
Hexachloroethane	ND	3.5	54	60	10.5				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	3.5	95	82	14.7				30 - 130	20
Isophorone	ND	3.5	65	61	6.3				30 - 130	20
Naphthalene	ND	1.5	63	69	9.1				30 - 130	20
Nitrobenzene	ND	3.5	63	65	3.1				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	45	51	12.5				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	65	65	0.0				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	82	77	6.3				30 - 130	20
Pentachloronitrobenzene	ND	5.0	88	84	4.7				30 - 130	20
Pentachlorophenol	ND	3.5	98	91	7.4				30 - 130	20
Phenanthrene	ND	1.5	89	86	3.4				30 - 130	20
Phenol	ND	1.0	51	55	7.5				15 - 130	20
Pyrene	ND	1.5	94	88	6.6				30 - 130	20
Pyridine	ND	5.0	37	44	17.3				30 - 130	20
% 2,4,6-Tribromophenol	68	%	83	79	4.9				15 - 110	20
% 2-Fluorobiphenyl	74	%	77	80	3.8				30 - 130	20
% 2-Fluorophenol	51	%	44	49	10.8				15 - 110	20
% Nitrobenzene-d5	63	%	61	64	4.8				30 - 130	20
% Phenol-d5	57	%	49	54	9.7				15 - 110	20
% Terphenyl-d14	85	%	93	89	4.4				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 432677 (ug/L), QC Sample No: CA58998 (CA58997 (100X) , CA58998, CA59003)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	90	96	6.5				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	86	93	7.8				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	92	99	7.3				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	87	95	8.8				70 - 130	30
1,1-Dichloroethane	ND	1.0	88	95	7.7				70 - 130	30
1,1-Dichloroethene	ND	1.0	87	94	7.7				70 - 130	30
1,1-Dichloropropene	ND	1.0	88	96	8.7				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	86	95	9.9				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	1.0	87	96	9.8				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	88	96	8.7				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	88	95	7.7				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	92	102	10.3				70 - 130	30
1,2-Dibromoethane	ND	1.0	89	96	7.6				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	86	93	7.8				70 - 130	30
1,2-Dichloroethane	ND	1.0	87	94	7.7				70 - 130	30
1,2-Dichloropropane	ND	1.0	88	97	9.7				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	88	96	8.7				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	87	94	7.7				70 - 130	30
1,3-Dichloropropane	ND	1.0	88	94	6.6				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	86	93	7.8				70 - 130	30
2,2-Dichloropropane	ND	1.0	92	98	6.3				70 - 130	30
2-Chlorotoluene	ND	1.0	88	95	7.7				70 - 130	30
2-Hexanone	ND	5.0	86	94	8.9				70 - 130	30
2-Isopropyltoluene	ND	1.0	93	100	7.3				70 - 130	30
4-Chlorotoluene	ND	1.0	88	95	7.7				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	88	96	8.7				70 - 130	30
Acetone	ND	5.0	81	85	4.8				70 - 130	30
Acrylonitrile	ND	5.0	99	105	5.9				70 - 130	30
Benzene	ND	0.70	88	97	9.7				70 - 130	30
Bromobenzene	ND	1.0	89	96	7.6				70 - 130	30
Bromochloromethane	ND	1.0	90	95	5.4				70 - 130	30
Bromodichloromethane	ND	0.50	88	97	9.7				70 - 130	30
Bromoform	ND	1.0	90	98	8.5				70 - 130	30
Bromomethane	ND	1.0	112	121	7.7				70 - 130	30
Carbon Disulfide	ND	1.0	100	106	5.8				70 - 130	30
Carbon tetrachloride	ND	1.0	87	94	7.7				70 - 130	30
Chlorobenzene	ND	1.0	87	95	8.8				70 - 130	30
Chloroethane	ND	1.0	87	93	6.7				70 - 130	30
Chloroform	ND	1.0	87	94	7.7				70 - 130	30
Chloromethane	ND	1.0	79	87	9.6				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	89	96	7.6				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	88	97	9.7				70 - 130	30
Dibromochloromethane	ND	0.50	94	101	7.2				70 - 130	30
Dibromomethane	ND	1.0	88	96	8.7				70 - 130	30
Dichlorodifluoromethane	ND	1.0	65	70	7.4				70 - 130	30
Ethylbenzene	ND	1.0	88	96	8.7				70 - 130	30
Hexachlorobutadiene	ND	0.40	92	99	7.3				70 - 130	30
Isopropylbenzene	ND	1.0	89	96	7.6				70 - 130	30
m&p-Xylene	ND	1.0	86	94	8.9				70 - 130	30
Methyl ethyl ketone	ND	5.0	95	98	3.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	80	86	7.2				70 - 130	30
Methylene chloride	ND	1.0	85	92	7.9				70 - 130	30
Naphthalene	ND	1.0	89	99	10.6				70 - 130	30
n-Butylbenzene	ND	1.0	92	99	7.3				70 - 130	30
n-Propylbenzene	ND	1.0	89	96	7.6				70 - 130	30
o-Xylene	ND	1.0	87	95	8.8				70 - 130	30
p-Isopropyltoluene	ND	1.0	89	96	7.6				70 - 130	30
sec-Butylbenzene	ND	1.0	92	100	8.3				70 - 130	30
Styrene	ND	1.0	88	96	8.7				70 - 130	30
tert-Butylbenzene	ND	1.0	88	95	7.7				70 - 130	30
Tetrachloroethene	ND	1.0	89	97	8.6				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrahydrofuran (THF)	ND	2.5	89	97	8.6				70 - 130	30
Toluene	ND	1.0	87	96	9.8				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	91	97	6.4				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	86	94	8.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	101	107	5.8				70 - 130	30
Trichloroethene	ND	1.0	89	98	9.6				70 - 130	30
Trichlorofluoromethane	ND	1.0	84	89	5.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	89	95	6.5				70 - 130	30
Vinyl chloride	ND	1.0	81	86	6.0				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	100	0.0				70 - 130	30
% Bromofluorobenzene	93	%	97	99	2.0				70 - 130	30
% Dibromofluoromethane	102	%	101	100	1.0				70 - 130	30
% Toluene-d8	98	%	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 432344 (ug/L), QC Sample No: CA59005 (CA59001, CA59005)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	94	97	3.1				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	90	92	2.2				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	107	108	0.9				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	97	99	2.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	94	98	4.2				70 - 130	30
1,1-Dichloroethene	ND	1.0	96	99	3.1				70 - 130	30
1,1-Dichloropropene	ND	1.0	96	99	3.1				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	92	92	0.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	101	102	1.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	89	92	3.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	90	93	3.3				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	104	103	1.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	98	100	2.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	90	93	3.3				70 - 130	30
1,2-Dichloroethane	ND	1.0	94	95	1.1				70 - 130	30
1,2-Dichloropropane	ND	1.0	96	99	3.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	89	92	3.3				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
1,3-Dichloropropane	ND	1.0	99	100	1.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	89	91	2.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	98	100	2.0				70 - 130	30
2-Chlorotoluene	ND	1.0	90	93	3.3				70 - 130	30
2-Hexanone	ND	5.0	105	107	1.9				70 - 130	30
2-Isopropyltoluene	ND	1.0	100	102	2.0				70 - 130	30
4-Chlorotoluene	ND	1.0	90	92	2.2				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	105	107	1.9				70 - 130	30
Acetone	ND	5.0	95	99	4.1				70 - 130	30
Acrylonitrile	ND	5.0	122	122	0.0				70 - 130	30
Benzene	ND	0.70	96	98	2.1				70 - 130	30
Bromobenzene	ND	1.0	93	94	1.1				70 - 130	30
Bromochloromethane	ND	1.0	99	100	1.0				70 - 130	30
Bromodichloromethane	ND	0.50	94	96	2.1				70 - 130	30
Bromoform	ND	1.0	99	103	4.0				70 - 130	30
Bromomethane	ND	1.0	88	96	8.7				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	1.0	107	109	1.9				70 - 130	30
Carbon tetrachloride	ND	1.0	92	94	2.2				70 - 130	30
Chlorobenzene	ND	1.0	91	95	4.3				70 - 130	30
Chloroethane	ND	1.0	97	101	4.0				70 - 130	30
Chloroform	ND	1.0	90	93	3.3				70 - 130	30
Chloromethane	ND	1.0	90	96	6.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	97	99	2.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	97	99	2.0				70 - 130	30
Dibromochloromethane	ND	0.50	102	104	1.9				70 - 130	30
Dibromomethane	ND	1.0	97	98	1.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	102	105	2.9				70 - 130	30
Ethylbenzene	ND	1.0	93	97	4.2				70 - 130	30
Hexachlorobutadiene	ND	0.40	91	94	3.2				70 - 130	30
Isopropylbenzene	ND	1.0	93	94	1.1				70 - 130	30
m&p-Xylene	ND	1.0	90	95	5.4				70 - 130	30
Methyl ethyl ketone	ND	5.0	111	112	0.9				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	104	108	3.8				70 - 130	30
Methylene chloride	ND	1.0	92	94	2.2				70 - 130	30
Naphthalene	ND	1.0	102	100	2.0				70 - 130	30
n-Butylbenzene	ND	1.0	94	97	3.1				70 - 130	30
n-Propylbenzene	ND	1.0	92	94	2.2				70 - 130	30
o-Xylene	ND	1.0	91	95	4.3				70 - 130	30
p-Isopropyltoluene	ND	1.0	91	94	3.2				70 - 130	30
sec-Butylbenzene	ND	1.0	95	99	4.1				70 - 130	30
Styrene	ND	1.0	93	97	4.2				70 - 130	30
tert-Butylbenzene	ND	1.0	89	92	3.3				70 - 130	30
Tetrachloroethene	ND	1.0	94	98	4.2				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	114	118	3.4				70 - 130	30
Toluene	ND	1.0	95	97	2.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	98	101	3.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	94	95	1.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	124	125	0.8				70 - 130	30
Trichloroethene	ND	1.0	94	97	3.1				70 - 130	30
Trichlorofluoromethane	ND	1.0	93	96	3.2				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	103	105	1.9				70 - 130	30
Vinyl chloride	ND	1.0	100	103	3.0				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	101	0.0				70 - 130	30
% Bromofluorobenzene	94	%	98	100	2.0				70 - 130	30
% Dibromofluoromethane	103	%	100	101	1.0				70 - 130	30
% Toluene-d8	98	%	99	99	0.0				70 - 130	30

Comment:

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

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

QA/QC Batch 432381 (ug/L), QC Sample No: CA59074 (CA58993, CA58994, CA58995, CA58996)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	90	90	0.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	88	87	1.1				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	81	86	6.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	71	78	9.4				70 - 130	30
1,1-Dichloroethane	ND	1.0	86	85	1.2				70 - 130	30
1,1-Dichloroethene	ND	1.0	93	90	3.3				70 - 130	30
1,1-Dichloropropene	ND	1.0	90	87	3.4				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,3-Trichlorobenzene	ND	1.0	79	89	11.9				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	77	83	7.5				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	81	88	8.3				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	97	93	4.2				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	75	84	11.3				70 - 130	30	
1,2-Dibromoethane	ND	1.0	79	84	6.1				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	85	87	2.3				70 - 130	30	
1,2-Dichloroethane	ND	1.0	76	79	3.9				70 - 130	30	
1,2-Dichloropropane	ND	1.0	82	84	2.4				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	97	92	5.3				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	89	90	1.1				70 - 130	30	
1,3-Dichloropropane	ND	1.0	78	82	5.0				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	88	89	1.1				70 - 130	30	
2,2-Dichloropropane	ND	1.0	91	88	3.4				70 - 130	30	
2-Chlorotoluene	ND	1.0	95	90	5.4				70 - 130	30	
2-Hexanone	ND	5.0	69	79	13.5				70 - 130	30	I
2-Isopropyltoluene	ND	1.0	109	106	2.8				70 - 130	30	
4-Chlorotoluene	ND	1.0	94	90	4.3				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	66	79	17.9				70 - 130	30	I
Acetone	ND	5.0	66	77	15.4				70 - 130	30	I
Acrylonitrile	ND	5.0	81	87	7.1				70 - 130	30	
Benzene	ND	0.70	87	85	2.3				70 - 130	30	
Bromobenzene	ND	1.0	92	89	3.3				70 - 130	30	
Bromochloromethane	ND	1.0	80	85	6.1				70 - 130	30	
Bromodichloromethane	ND	0.50	81	85	4.8				70 - 130	30	
Bromoform	ND	1.0	77	85	9.9				70 - 130	30	
Bromomethane	ND	1.0	141	134	5.1				70 - 130	30	I
Carbon Disulfide	ND	1.0	110	105	4.7				70 - 130	30	
Carbon tetrachloride	ND	1.0	89	87	2.3				70 - 130	30	
Chlorobenzene	ND	1.0	89	87	2.3				70 - 130	30	
Chloroethane	ND	1.0	106	103	2.9				70 - 130	30	
Chloroform	ND	1.0	83	84	1.2				70 - 130	30	
Chloromethane	ND	1.0	102	100	2.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	83	87	4.7				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	77	82	6.3				70 - 130	30	
Dibromochloromethane	ND	0.50	85	90	5.7				70 - 130	30	
Dibromomethane	ND	1.0	72	77	6.7				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	113	108	4.5				70 - 130	30	
Ethylbenzene	ND	1.0	93	90	3.3				70 - 130	30	
Hexachlorobutadiene	ND	0.40	102	97	5.0				70 - 130	30	
Isopropylbenzene	ND	1.0	97	91	6.4				70 - 130	30	
m&p-Xylene	ND	1.0	91	88	3.4				70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	81	13.2				70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	77	89	14.5				70 - 130	30	
Methylene chloride	ND	1.0	83	84	1.2				70 - 130	30	
Naphthalene	ND	1.0	79	85	7.3				70 - 130	30	
n-Butylbenzene	ND	1.0	92	92	0.0				70 - 130	30	
n-Propylbenzene	ND	1.0	95	91	4.3				70 - 130	30	
o-Xylene	ND	1.0	91	89	2.2				70 - 130	30	
p-Isopropyltoluene	ND	1.0	93	93	0.0				70 - 130	30	
sec-Butylbenzene	ND	1.0	92	93	1.1				70 - 130	30	
Styrene	ND	1.0	88	88	0.0				70 - 130	30	
tert-Butylbenzene	ND	1.0	92	91	1.1				70 - 130	30	

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrachloroethene	ND	1.0	87	88	1.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	73	81	10.4				70 - 130	30
Toluene	ND	1.0	87	87	0.0				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	91	88	3.4				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	73	79	7.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	92	98	6.3				70 - 130	30
Trichloroethene	ND	1.0	91	88	3.4				70 - 130	30
Trichlorofluoromethane	ND	1.0	100	96	4.1				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	105	103	1.9				70 - 130	30
Vinyl chloride	ND	1.0	102	95	7.1				70 - 130	30
% 1,2-dichlorobenzene-d4	91	%	96	98	2.1				70 - 130	30
% Bromofluorobenzene	93	%	95	98	3.1				70 - 130	30
% Dibromofluoromethane	91	%	88	93	5.5				70 - 130	30
% Toluene-d8	91	%	99	99	0.0				70 - 130	30

Comment:

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

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

QA/QC Batch 432568 (mg/L), QC Sample No: CA59173 (CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	88	86	2.3				60 - 120	30
% n-Pentacosane	68	%	69	69	0.0				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 432347 (ug/L), QC Sample No: CA59634 (CA58996 (20X))

Volatiles - Ground Water

Naphthalene	ND	1.0	94	111	16.6				70 - 130	30
o-Xylene	ND	1.0	105	104	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 432528 (ug/L), QC Sample No: CA59920 (CA58997 (10X, 50X) , CA58999, CA59000, CA59001 (10X) , CA59002, CA59004)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	96	95	1.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	93	94	1.1				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	101	100	1.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	99	97	2.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	94	95	1.1				70 - 130	30
1,1-Dichloroethene	ND	1.0	95	97	2.1				70 - 130	30
1,1-Dichloropropene	ND	1.0	93	96	3.2				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	99	98	1.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	97	97	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	97	96	1.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	92	95	3.2				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	102	102	0.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	97	97	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	93	93	0.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	96	94	2.1				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dichloropropane	ND	1.0	96	96	0.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	92	95	3.2				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	92	94	2.2				70 - 130	30
1,3-Dichloropropane	ND	1.0	96	94	2.1				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	90	92	2.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	83	83	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	91	94	3.2				70 - 130	30
2-Hexanone	ND	5.0	97	94	3.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	96	101	5.1				70 - 130	30
4-Chlorotoluene	ND	1.0	91	93	2.2				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	100	97	3.0				70 - 130	30
Acetone	ND	5.0	94	97	3.1				70 - 130	30
Acrylonitrile	ND	5.0	105	107	1.9				70 - 130	30
Benzene	ND	0.70	94	95	1.1				70 - 130	30
Bromobenzene	ND	1.0	95	97	2.1				70 - 130	30
Bromochloromethane	ND	1.0	98	95	3.1				70 - 130	30
Bromodichloromethane	ND	0.50	96	97	1.0				70 - 130	30
Bromoform	ND	1.0	102	99	3.0				70 - 130	30
Bromomethane	ND	1.0	114	118	3.4				70 - 130	30
Carbon Disulfide	ND	1.0	107	110	2.8				70 - 130	30
Carbon tetrachloride	ND	1.0	95	95	0.0				70 - 130	30
Chlorobenzene	ND	1.0	93	93	0.0				70 - 130	30
Chloroethane	ND	1.0	94	94	0.0				70 - 130	30
Chloroform	ND	1.0	94	95	1.1				70 - 130	30
Chloromethane	ND	1.0	90	93	3.3				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	96	96	0.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	94	93	1.1				70 - 130	30
Dibromochloromethane	ND	0.50	103	101	2.0				70 - 130	30
Dibromomethane	ND	1.0	97	95	2.1				70 - 130	30
Dichlorodifluoromethane	ND	1.0	82	89	8.2				70 - 130	30
Ethylbenzene	ND	1.0	94	95	1.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	93	98	5.2				70 - 130	30
Isopropylbenzene	ND	1.0	92	95	3.2				70 - 130	30
m&p-Xylene	ND	1.0	91	93	2.2				70 - 130	30
Methyl ethyl ketone	ND	5.0	99	95	4.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	91	88	3.4				70 - 130	30
Methylene chloride	ND	1.0	93	93	0.0				70 - 130	30
Naphthalene	ND	1.0	100	100	0.0				70 - 130	30
n-Butylbenzene	ND	1.0	91	96	5.3				70 - 130	30
n-Propylbenzene	ND	1.0	91	94	3.2				70 - 130	30
o-Xylene	ND	1.0	93	94	1.1				70 - 130	30
p-Isopropyltoluene	ND	1.0	92	95	3.2				70 - 130	30
sec-Butylbenzene	ND	1.0	95	98	3.1				70 - 130	30
Styrene	ND	1.0	95	95	0.0				70 - 130	30
tert-Butylbenzene	ND	1.0	91	94	3.2				70 - 130	30
Tetrachloroethene	ND	1.0	93	95	2.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	103	98	5.0				70 - 130	30
Toluene	ND	1.0	94	96	2.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	95	96	1.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	93	92	1.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	105	103	1.9				70 - 130	30
Trichloroethene	ND	1.0	94	96	2.1				70 - 130	30
Trichlorofluoromethane	ND	1.0	91	94	3.2				70 - 130	30

QA/QC Data

SDG I.D.: GCA58993

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Trichlorotrifluoroethane	ND	1.0	93	98	5.2				70 - 130	30
Vinyl chloride	ND	1.0	89	92	3.3				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0				70 - 130	30
% Bromofluorobenzene	93	%	99	99	0.0				70 - 130	30
% Dibromofluoromethane	102	%	101	99	2.0				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 432919 (mg/L), QC Sample No: CA60584 (CA59001)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	89	94	5.5				60 - 120	30
% n-Pentacosane	64	%	66	65	1.5				50 - 150	20

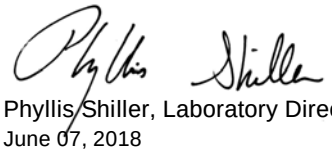
Comment:

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.

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
June 07, 2018

Thursday, June 07, 2018

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA58993 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA58993	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58993	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA58993	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.63	0.05	0.3	0.3	ug/L
CA58993	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.10	0.05	0.077	0.077	ug/L
CA58994	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58994	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA58994	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.683	0.001	0.05	0.05	mg/L
CA58994	CU-WM	Copper	CT / RSR SWPC (ug/l) / Inorganics	0.219	0.005	0.048	0.048	mg/L
CA58994	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	5.67	0.010	0.1	0.1	mg/L
CA58994	NI-WM	Nickel	CT / RSR SWPC (ug/l) / Inorganics	5.67	0.010	0.88	0.88	mg/L
CA58995	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58995	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA58995	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	45	14	1	1	ug/L
CA58995	$8270-CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.18	0.05	0.1	0.1	ug/L
CA58995	$8270-CTSIMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.23	0.05	0.08	0.08	ug/L
CA58995	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	0.39	0.05	0.2	0.2	ug/L
CA58995	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.20	0.05	0.06	0.06	ug/L
CA58995	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.3	0.05	0.3	0.3	ug/L
CA58995	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.39	0.05	0.3	0.3	ug/L
CA58995	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	1.0	0.066	0.25	0.25	mg/L
CA58995	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	1.0	0.066	0.5	0.5	mg/L
CA58995	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	1.0	0.066	0.25	0.25	mg/L
CA58996	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58996	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA58996	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	2.0	0.70	1	1	ug/L
CA58996	$8270-CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.11	0.05	0.1	0.1	ug/L
CA58996	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.19	0.05	0.06	0.06	ug/L
CA58996	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	0.22	0.05	0.2	0.2	ug/L
CA58996	$8270-CTSIMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.11	0.05	0.08	0.08	ug/L
CA58996	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.87	0.05	0.077	0.077	ug/L
CA58996	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	1.8	0.05	0.077	0.077	ug/L
CA58996	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	2.4	0.05	0.3	0.3	ug/L
CA58996	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	1.0	0.066	0.25	0.25	mg/L
CA58996	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	1.0	0.066	0.5	0.5	mg/L
CA58996	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	1.0	0.066	0.25	0.25	mg/L
CA58997	$8260GWR	Total Xylenes	CT / RSR SWPC (ug/l) / APS Organics	370	10	270	270	ug/L
CA58997	$8260GWR	Isopropylbenzene	CT / RSR GWPC (ug/l) / APS Organics	36	10	25	25	ug/L
CA58997	$8260GWR	Tetrahydrofuran (THF)	CT / RSR GWPC (ug/l) / APS Organics	ND	25	4	4	ug/L
CA58997	$8260GWR	1,2,4-Trimethylbenzene	CT / RSR GWPC (ug/l) / APS Organics	180	10	140	140	ug/L

Thursday, June 07, 2018

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA58993 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA58997	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	5.0	0.2	0.2	ug/L
CA58997	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	ND	2.5	1	1	ug/L
CA58997	$8260GWR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	1600	100	280	280	ug/L
CA58997	$8260GWR	1,1,1,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	1	1	ug/L
CA58997	$8260GWR	Methylene chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	10	5	5	ug/L
CA58997	$8260GWR	Vinyl chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	2	2	ug/L
CA58997	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.05	0.05	ug/L
CA58997	$8260GWR	1,1,2,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CA58997	$8260GWR	Dibromochloromethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CA58997	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	31	7.0	1	1	ug/L
CA58997	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CA58997	$8260GWR	1,2-Dichloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	1	1	ug/L
CA58997	$8260GWR	Bromodichloromethane	CT / RSR GWVC RES (ug/l) / APS Organics	ND	2.5	1.1	1.1	ug/L
CA58997	$8260GWR	Vinyl chloride	CT / RSR GWVC RES (ug/l) / Volatiles	ND	2.5	2	2	ug/L
CA58997	$8260GWR	1,1-Dichloroethene	CT / RSR GWVC RES (ug/l) / Volatiles	ND	2.5	1	1	ug/L
CA58997	$8260GWR	1,2,4-Trimethylbenzene	CT / RSR SWPC (ug/l) / APS Organics	180	10	150	150	ug/L
CA58997	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR SWPC (ug/l) / APS Organics	ND	5.0	1.1	1.1	ug/L
CA58997	$8260GWR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	1600	100	210	210	ug/L
CA58997	$8270-WMR	4-Chloroaniline	CT / RSR GWPC (ug/l) / APS Organics	ND	19	5	5	ug/L
CA58997	$8270-WMR	3,3'-Dichlorobenzidine	CT / RSR GWPC (ug/l) / APS Organics	ND	22	5	5	ug/L
CA58997	$8270-WMR	2-Nitroaniline	CT / RSR GWPC (ug/l) / APS Organics	ND	33	10	10	ug/L
CA58997	$8270-WMR	2-Methylnaphthalene	CT / RSR GWPC (ug/l) / APS Organics	160	47	28	28	ug/L
CA58997	$8270-WMR	2,6-Dinitrotoluene	CT / RSR GWPC (ug/l) / APS Organics	ND	15	5	5	ug/L
CA58997	$8270-WMR	2,4-Dinitrotoluene	CT / RSR GWPC (ug/l) / APS Organics	ND	18	5	5	ug/L
CA58997	$8270-WMR	2,4,6-Trichlorophenol	CT / RSR GWPC (ug/l) / APS Organics	ND	8.5	5	5	ug/L
CA58997	$8270-WMR	3-Nitroaniline	CT / RSR GWPC (ug/l) / APS Organics	ND	19	10	10	ug/L
CA58997	$8270-WMR	1,2,4,5-Tetrachlorobenzene	CT / RSR GWPC (ug/l) / APS Organics	ND	17	5	5	ug/L
CA58997	$8270-WMR	1,2-Diphenylhydrazine	CT / RSR GWPC (ug/l) / APS Organics	ND	15	5	5	ug/L
CA58997	$8270-WMR	4-Nitroaniline	CT / RSR GWPC (ug/l) / APS Organics	ND	16	10	10	ug/L
CA58997	$8270-WMR	Carbazole	CT / RSR GWPC (ug/l) / APS Organics	50	47	5	5	ug/L
CA58997	$8270-WMR	Chrysene	CT / RSR GWPC (ug/l) / APS Organics	ND	16	4.8	4.8	ug/L
CA58997	$8270-WMR	Benzo(ghi)perylene	CT / RSR GWPC (ug/l) / APS Organics	ND	15	0.48	0.48	ug/L
CA58997	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR GWPC (ug/l) / APS Organics	ND	15	0.1	0.1	ug/L
CA58997	$8270-WMR	Dibenzofuran	CT / RSR GWPC (ug/l) / APS Organics	ND	47	7	7	ug/L
CA58997	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	ND	16	0.1	0.1	ug/L
CA58997	$8270-WMR	Nitrobenzene	CT / RSR GWPC (ug/l) / APS Organics	ND	16	5	5	ug/L
CA58997	$8270-WMR	Benzidine	CT / RSR GWPC (ug/l) / APS Organics	ND	28	5	5	ug/L
CA58997	$8270-WMR	N-Nitrosodimethylamine	CT / RSR GWPC (ug/l) / APS Organics	ND	13	5	5	ug/L
CA58997	$8270-WMR	N-Nitrosodi-n-propylamine	CT / RSR GWPC (ug/l) / APS Organics	ND	15	5	5	ug/L
CA58997	$8270-WMR	N-Nitrosodiphenylamine	CT / RSR GWPC (ug/l) / APS Organics	ND	18	7.1	7.1	ug/L
CA58997	$8270-WMR	Aniline	CT / RSR GWPC (ug/l) / APS Organics	ND	9.4	6.1	6.1	ug/L
CA58997	$8270-WMR	Pentachloronitrobenzene	CT / RSR GWPC (ug/l) / APS Organics	ND	17	7	7	ug/L

Thursday, June 07, 2018

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA58993 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA58997	$8270-WMR	Pyridine	CT / RSR GWPC (ug/l) / APS Organics	ND	12	5	5	ug/L
CA58997	$8270-WMR	Bis(2-ethylhexyl)phthalate	CT / RSR GWPC (ug/l) / Semivolatiles	ND	14	2	2	ug/L
CA58997	$8270-WMR	Hexachloroethane	CT / RSR GWPC (ug/l) / Semivolatiles	ND	14	3	3	ug/L
CA58997	$8270-WMR	Dibenzofuran	CT / RSR GWPC (ug/l) / Semivolatiles	ND	47	1	1	ug/L
CA58997	$8270-WMR	Pentachlorophenol	CT / RSR GWPC (ug/l) / Semivolatiles	ND	8.5	1	1	ug/L
CA58997	$8270-WMR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	1200	470	280	280	ug/L
CA58997	$8270-WMR	Bis(2-chloroethyl)ether	CT / RSR GWPC (ug/l) / Semivolatiles	ND	13	12	12	ug/L
CA58997	$8270-WMR	Benzo(k)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	16	0.5	0.5	ug/L
CA58997	$8270-WMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	16	0.06	0.06	ug/L
CA58997	$8270-WMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	16	0.08	0.08	ug/L
CA58997	$8270-WMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	15	0.2	0.2	ug/L
CA58997	$8270-WMR	Bis(2-chloroisopropyl)ether	CT / RSR GWPC (ug/l) / Semivolatiles	ND	13	12	12	ug/L
CA58997	$8270-WMR	1,2-Diphenylhydrazine	CT / RSR SWPC (ug/l) / APS Organics	ND	15	6	6	ug/L
CA58997	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / APS Organics	ND	47	14	14	ug/L
CA58997	$8270-WMR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	1200	470	210	210	ug/L
CA58997	$8270-WMR	2-Methylnaphthalene	CT / RSR SWPC (ug/l) / APS Organics	160	47	62	62	ug/L
CA58997	$8270-WMR	3,3'-Dichlorobenzidine	CT / RSR SWPC (ug/l) / APS Organics	ND	22	5	5	ug/L
CA58997	$8270-WMR	Benzidine	CT / RSR SWPC (ug/l) / APS Organics	ND	28	5	5	ug/L
CA58997	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	ND	16	0.54	0.54	ug/L
CA58997	$8270-WMR	4-Chloroaniline	CT / RSR SWPC (ug/l) / APS Organics	ND	19	9.9	9.9	ug/L
CA58997	$8270-WMR	Hexachlorocyclopentadiene	CT / RSR SWPC (ug/l) / APS Organics	ND	14	0.7	0.7	ug/L
CA58997	$8270-WMR	Dibenzofuran	CT / RSR SWPC (ug/l) / APS Organics	ND	47	40	40	ug/L
CA58997	$8270-WMR	1,2,4,5-Tetrachlorobenzene	CT / RSR SWPC (ug/l) / APS Organics	ND	17	11	11	ug/L
CA58997	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR SWPC (ug/l) / APS Organics	ND	15	0.3	0.3	ug/L
CA58997	$8270-WMR	Chrysene	CT / RSR SWPC (ug/l) / APS Organics	ND	16	0.54	0.54	ug/L
CA58997	$8270-WMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	ND	47	0.077	0.077	ug/L
CA58997	$8270-WMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	16	0.3	0.3	ug/L
CA58997	$8270-WMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	16	0.3	0.3	ug/L
CA58997	$8270-WMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	13	0.3	0.3	ug/L
CA58997	$8270-WMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	16	0.3	0.3	ug/L
CA58997	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	47	0.077	0.077	ug/L
CA58997	$8270-WMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	15	0.3	0.3	ug/L
CA58997	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	4.5	0.066	0.5	0.5	mg/L
CA58997	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	4.5	0.066	0.25	0.25	mg/L
CA58997	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	4.5	0.066	0.25	0.25	mg/L
CA58997	TCN-WM	Total Cyanide	CT / RSR SWPC (ug/l) / Inorganics	0.062	0.010	0.052	0.052	mg/L
CA58998	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58998	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA58999	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA58999	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Thursday, June 07, 2018

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA58993 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA59000	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59000	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA59001	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59001	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	53	7.0	1	1	ug/L
CA59001	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA59001	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.11	0.05	0.077	0.077	ug/L
CA59001	TCN-WM	Total Cyanide	CT / RSR SWPC (ug/l) / Inorganics	0.069	0.010	0.052	0.052	mg/L
CA59002	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59002	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA59002	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.497	0.001	0.1	0.1	mg/L
CA59003	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59003	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA59003	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.08	0.05	0.06	0.06	ug/L
CA59003	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.674	0.001	0.05	0.05	mg/L
CA59003	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.372	0.001	0.1	0.1	mg/L
CA59004	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59004	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CA59005	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CA59005	$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): CA58993-CA59005 ***Sampling Date(s):*** 5/24/2018

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: ETPH 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: Rashmi Makol **Position:** Project Manager

Printed Name: Rashmi Makol **Date:** Thursday, June 07, 2018

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

June 07, 2018

SDG I.D.: GCA58993

SDG Comments

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

Sample(CA58997) 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.

Sample(CA58997) 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.

Cyanide Narration

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

Instrument:

LACHAT 05/29/18-1 Dustin Harrison, Greg Danielewski, Chemist 05/29/18

CA58993, CA58994

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 05/31/18-1 Dustin Harrison, Greg Danielewski, Chemist 05/31/18

CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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 432201 (CA52316)

CA58993, CA58994

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Cyanide blank spike recovery was 104 %.
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

QC (Site Specific):

Batch 432575 (CA58995)

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NY # 11301

RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

Cyanide Narration

CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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

ETPH Narration

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

CA59001 – Poor surrogate recovery was observed. The sample was re-analyzed with similar results. A slight negative bias cannot be ruled out.

Instrument:

AU-XL2 05/31/18-1 Jeff Bucko, Chemist 05/31/18

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59002, CA59003, CA59004

The initial calibration (ETPH509I) 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 06/04/18-1 Jeff Bucko, Chemist 06/04/18

CA59001

The initial calibration (ETPH509I) 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 432568 (CA59173)

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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 432919 (CA60584)

CA59001

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 05/25/18 04:13 Mike Arsenault, Chemist 05/25/18

CA58993, CA58994

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

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Certification Report

June 07, 2018

SDG I.D.: GCA58993

Mercury Narration

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

MERLIN 05/30/18 07:53 Rick Schweitzer, Chemist 05/30/18

CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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 432054 (CA58955)

CA58993, CA58994

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

QC (Site Specific):

Batch 432060 (CA58995)

CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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%.

ICP Metals Narration

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

Instrument:

BLUE 05/29/18 06:35 Mike Arsenault, Chemist 05/29/18

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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

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Certification Report

June 07, 2018

SDG I.D.: GCA58993

ICP Metals Narration

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

BLUE 05/30/18 07:36 Mike Arsenault, Chemist 05/30/18

CA58994

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 432263 (CA58594)

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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

ICPMS Metals Narration

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

Instrument:

ICPMS 05/29/18 10:03 Cindy Pearce, Chemist 05/29/18

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003

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 samples did not meet internal standard criteria: None.

ICPMS 05/30/18 14:41 Cindy Pearce, Chemist 05/30/18

CA59004

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 samples did not meet internal standard criteria: None.

QC (Batch Specific):

Batch 432187 (CA58912)

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003

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

Batch 432375 (CA59645)

CA59004

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

Certification Report

June 07, 2018

SDG I.D.: GCA58993

ICPMS 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? Yes.

Instrument:

CHEM05 05/31/18-1 Matt Richard, Chemist 05/31/18

CA59000, CA59001, CA59002

Initial Calibration Verification (CHEM05/SPLIT_0514):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.082 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0531_04-SPLIT_0514):
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: Benzoic acid 37%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.085 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM05 06/01/18-1 Damien Drobinski, Chemist 06/01/18

CA58996, CA58997, CA59003, CA59004

Initial Calibration Verification (CHEM05/SPLIT_0514):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.082 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0601_02-SPLIT_0514):
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)
The following compounds did not meet minimum response factors: None.

CHEM19 05/31/18-1 Damien Drobinski, Chemist 05/31/18

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999

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_0525):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 23% (20%), Benzidine 23% (20%), Di-n-octylphthalate 24% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.073 (0.1), Bis(2-chloroethyl)ether 0.547 (0.7), Hexachlorobenzene 0.057 (0.1)

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RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

SVOA Narration

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

Continuing Calibration Verification (CHEM19/0531_02-SPLIT_0525):
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: Benzoic acid 42%L (30%)
The following compounds did not meet maximum % deviations: Benzoic acid 42%L (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.079 (0.1), Bis(2-chloroethyl)ether 0.466 (0.7), Hexachlorobenzene 0.060 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 432382 (CA58993)

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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%)

SVOASIM Narration

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

Instrument:

CHEM04 05/31/18-1 Damien Drobinski, Chemist 05/31/18

CA58993, CA58994, CA58995, CA58996, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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_0521):
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 (CHEM04/0531_02-SIM_0521):
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):

Environmental Laboratories, Inc.
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RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

SVOASIM Narration

Batch 432382 (CA58993)

CA58993, CA58994, CA58995, CA58996, CA58997, CA58998, CA58999, CA59000, CA59001, CA59002, CA59003, CA59004

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%)

VOA Narration

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

QC Batch 432381 (Samples: CA58993, CA58994, CA58995, CA58996): -----

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)

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (2-Hexanone, 4-Methyl-2-pentanone, Acetone)

QC Batch 432677 (Samples: CA58997, CA58998, CA59003): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Dichlorodifluoromethane)

Instrument:

CHEM02 05/27/18-1 Michael Hahn, Chemist 05/27/18

CA59001, CA59005

Initial Calibration Verification (CHEM02/VT-P0522):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromomethane 24% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), 2-Hexanone 0.093 (0.1), Acetone 0.052 (0.1), Bromoform 0.094 (0.1), Methyl ethyl ketone 0.076 (0.1), Tetrahydrofuran (THF) 0.046 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0527P02-VT-P0522):
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: 1,2,3-Trichlorobenzene 31%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.031 (0.05), Bromoform 0.084 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM02 05/29/18-2 Michael Hahn, Chemist 05/29/18

CA58997, CA58999, CA59000, CA59001, CA59002, CA59004

Initial Calibration Verification (CHEM02/VT-P0529):
96% of target compounds met criteria.

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RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

VOA Narration

The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%), Bromomethane 30% (20%), trans-1,4-dichloro-2-butene 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), 2-Hexanone 0.098 (0.1), Acetone 0.052 (0.1), Bromoform 0.092 (0.1), Methyl ethyl ketone 0.080 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0529P13-VT-P0529):
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 0.038 (0.05), Bromoform 0.097 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM02 05/30/18-1 Harry Mullin, Chemist 05/30/18

CA58997, CA58998, CA59003

Initial Calibration Verification (CHEM02/VT-P0529):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%), Bromomethane 30% (20%), trans-1,4-dichloro-2-butene 23% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), 2-Hexanone 0.098 (0.1), Acetone 0.052 (0.1), Bromoform 0.092 (0.1), Methyl ethyl ketone 0.080 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0530P02-VT-P0529):
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 0.032 (0.05), Bromoform 0.087 (0.1), Tetrahydrofuran (THF) 0.046 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 05/25/18-1 Michael Hahn, Chemist 05/25/18

CA58993, CA58994, CA58995, CA58996

Initial Calibration Verification (CHEM17/VT-S0523):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Bromomethane 25% (20%), trans-1,4-dichloro-2-butene 27% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), 2-Hexanone 0.093 (0.1), Acetone 0.053 (0.1), Methyl ethyl ketone 0.078 (0.1), Tetrahydrofuran (THF) 0.048 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0525_02-VT-S0523):
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 0.036 (0.05), Bromoform

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RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

VOA Narration

0.095 (0.1), Tetrahydrofuran (THF) 0.041 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 05/26/18-2 Michael Hahn, Chemist 05/26/18

CA58995

Initial Calibration Verification (CHEM17/VT-S0526):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Naphthalene 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 (CHEM17/0526_15-VT-S0526):
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.

CHEM17 05/27/18-1 Michael Hahn, Chemist 05/27/18

CA58996

Initial Calibration Verification (CHEM17/VT-S0526):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Naphthalene 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 (CHEM17/0527_02-VT-S0526):
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 432344 (CA59005)

CA59001, CA59005

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%.

Batch 432347 (CA59634)

CA58996

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.

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RCP Certification Report

June 07, 2018

SDG I.D.: GCA58993

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%.

Batch 432353 (CA58912)

CA58995

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%.

Batch 432381 (CA59074)

CA58993, CA58994, CA58995, CA58996

All LCS recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(69%), 4-Methyl-2-pentanone(66%), Acetone(66%), Bromomethane(141%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(134%)
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%.

Batch 432528 (CA59920)

CA58997, CA58999, CA59000, CA59001, CA59002, CA59004

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%.

Batch 432677 (CA58998)

CA58997, CA58998, CA59003

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(65%)
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 1.3C with cooling initiated.
(Note acceptance criteria for relevant matrices 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 1.3 °C Pg 1 of 2

Data Delivery/Contact Options:
☐ Fax.
☐ Phone:
☒ Email: jewilley@tighebond.com

Customer: Tighe + Bond
Address: 213 COURT ST
MIDDLETOWN, CT

Project: ROCKVILLE MGP
Report to: Lynn Willey
Invoice to: TIB WESTFIELD OFFICE

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 5/24/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	RCP RSR Metals	ETPH	Total Cyanide	GL Amber 8 oz w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container [ ] oz	GL Soil container [ ] oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [X] As is [ ] 1:1H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [✓] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/hypo	Bacteria Bottle as is
58993	MW-1S	GW	5/24/18	10:22	✓	✓	✓	✓	✓					3	3			1	1		
58994	MW-1D			8:57	✓	✓	✓	✓	✓					3	3			1	1		
58995	MW-3S			9:00	✓	✓	✓	✓	✓					3	3			1	1		
58996	MW-7S			10:40	✓	✓	✓	✓	✓					3	3			1	1		
58997	MW-9S			15:35	✓	✓	✓	✓	✓					3	3			1	1		
58998	MW-19S			12:25	✓	✓	✓	✓	✓					3	3			1	1		
58999	MW-21S			13:50	✓	✓	✓	✓	✓					3	3			1	1		
59000	MW-10M			3:47P	✓	✓	✓	✓	✓					3	3			1	1		
59001	MW-14D			2:04P	✓	✓	✓	✓	✓					3	3			1	1		
59002	MW-14S			12:44P	✓	✓	✓	✓	✓					3	3			1	1		
59003	MW-9D			16:50	✓	✓	✓	✓	✓					3	3			1	1		
59004	MW-DUP2	↓	↓	3:48P	✓	✓	✓	✓	✓					3	3			1	1		

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TRANSPORT	5/24/18	1759

Comments, Special Requirements or Regulations:
DAS RATES

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 RCSVC

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

The Connecticut Light and Power Company
d/b/a Eversource Energy
Docket No. 26-05-10
Date Issued September 29, 2026
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Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐

Temp 1.3 °C Pg 2 of 2

CHAIN OF CUSTODY RECORD

PHOENIX *Environmental Laboratories, Inc.*

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

Data Delivery/Contact Options:
☐ Fax: _____
☐ Phone: _____
☐ Email: _____

Customer: _____
Address: SAME
Project: _____
Report to: _____
Invoice to: SAME
Project P.O: _____

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 5/24/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container [ ] oz	GL Soil container [ ] oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
59005	Blank-trip				1							3					

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	5/24/18	1750

Comments, Special Requirements or Regulations:
DAS rates

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: _____

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

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 22
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PHOENIX
Environmental Laboratories, Inc.

Wednesday, June 13, 2018

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

Project ID: ROCKVILLE MGP
Sample ID#s: CA61367

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

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

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

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

Sincerely yours,

Phyllis Shiller
Laboratory Director

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

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

NY # 11301

SDG Comments

June 13, 2018

SDG I.D.: GCA61367

Volatile 8260 analysis:
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.

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 13, 2018

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:		05/31/18	7:45
Location Code:	TIGHE-DAS	Received by:	CP	05/31/18	8:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	140755844B				

Laboratory Data

SDG ID: GCA61367
Phoenix ID: CA61367

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	06/01/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	06/01/18	EK	SW6010C
Barium	0.299	0.002	mg/L	1	06/01/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Chromium	0.002	0.001	mg/L	1	06/01/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	06/01/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	06/01/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Antimony	< 0.005	0.005	mg/L	1	06/01/18	EK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	06/01/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	06/01/18	CPP	SW6020B
Vanadium	0.002	0.002	mg/L	1	06/01/18	EK	SW6010C
Zinc	0.003	0.002	mg/L	1	06/01/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	06/05/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				06/04/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				06/01/18	Q/I/I	SW7470A
Semi-Volatile Extraction	Completed				06/04/18	P/D/D	SW3520C
Total Metals Digestion	Completed				05/31/18	AG	
Total Metals Digestion MS	Completed				05/31/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	06/05/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	06/05/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	55		%	1	06/05/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CA61367

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	06/04/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Acetone	ND	25	ug/L	1	06/04/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	06/04/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	06/04/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CA61367

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	06/04/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	06/04/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	06/04/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	06/04/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	06/04/18	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	06/04/18	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	06/04/18	MH	70 - 130 %
% Toluene-d8	95		%	1	06/04/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	06/07/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	06/07/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CA61367

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	06/07/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	06/07/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	06/07/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	06/07/18	DD	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	06/07/18	DD	30 - 130 %
% 2-Fluorophenol	54		%	1	06/07/18	DD	15 - 110 %
% Nitrobenzene-d5	76		%	1	06/07/18	DD	30 - 130 %
% Phenol-d5	60		%	1	06/07/18	DD	15 - 110 %
% Terphenyl-d14	74		%	1	06/07/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	06/06/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	06/06/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	06/06/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CA61367

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	06/06/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	06/06/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	06/06/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	73		%	1	06/06/18	DD	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	06/06/18	DD	30 - 130 %
% 2-Fluorophenol	56		%	1	06/06/18	DD	15 - 110 %
% Nitrobenzene-d5	92		%	1	06/06/18	DD	30 - 130 %
% Phenol-d5	74		%	1	06/06/18	DD	15 - 110 %
% Terphenyl-d14	72		%	1	06/06/18	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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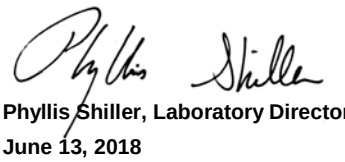

Phyllis Shiller, Laboratory Director
June 13, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director



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

QA/QC Report

June 13, 2018

QA/QC Data

SDG I.D.: GCA61367

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 432747 (mg/L), QC Sample No: CA61339 5X (CA61367)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0005	<0.0005	<0.0005	NC	98.2			100			75 - 125	20
QA/QC Batch 432732 (mg/L), QC Sample No: CA61539 (CA61367)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	113			111			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	103			102			75 - 125	20
Barium	BRL	0.002	0.033	0.032	3.10	106			104			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	105			103			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	110			103			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	106			101			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	103			102			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	107			102			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	110			104			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	103			99.4			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	102			99.6			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	104			101			75 - 125	20
Zinc	BRL	0.002	<0.002	<0.002	NC	107			103			75 - 125	20
QA/QC Batch 432816 (mg/L), QC Sample No: CA61704 (CA61367)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	82.3			95.1			80 - 120	20

Comment:

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

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

QA/QC Report

June 13, 2018

QA/QC Data

SDG I.D.: GCA61367

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 433119 (mg/L), QC Sample No: CA61339 (CA61367)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	92.5			103			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

June 13, 2018

QA/QC Data

SDG I.D.: GCA61367

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 433110 (mg/L), QC Sample No: CA61339 (CA61367)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	80	78	2.5				60 - 120	30
% n-Pentacosane	68	%	74	68	8.5				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 433254 (ug/L), QC Sample No: CA61344 (CA61367)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	101	97	4.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	98	95	3.1				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	101	92	9.3				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	101	86	16.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	96	92	4.3				70 - 130	30
1,1-Dichloroethene	ND	1.0	106	106	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	100	99	1.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	98	94	4.2				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	97	89	8.6				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	101	96	5.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	99	100	1.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	99	85	15.2				70 - 130	30
1,2-Dibromoethane	ND	1.0	102	95	7.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	101	97	4.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	96	85	12.2				70 - 130	30
1,2-Dichloropropane	ND	1.0	100	93	7.3				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	98	100	2.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	98	2.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	99	90	9.5				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	99	97	2.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	99	91	8.4				70 - 130	30
2-Chlorotoluene	ND	1.0	100	101	1.0				70 - 130	30
2-Hexanone	ND	5.0	80	70	13.3				70 - 130	30
2-Isopropyltoluene	ND	1.0	98	99	1.0				70 - 130	30
4-Chlorotoluene	ND	1.0	98	99	1.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	87	70	21.7				70 - 130	30
Acetone	ND	5.0	55	55	0.0				70 - 130	30
Acrylonitrile	ND	5.0	90	77	15.6				70 - 130	30
Benzene	ND	0.70	99	95	4.1				70 - 130	30
Bromobenzene	ND	1.0	101	100	1.0				70 - 130	30
Bromochloromethane	ND	1.0	100	87	13.9				70 - 130	30
Bromodichloromethane	ND	0.50	102	92	10.3				70 - 130	30
Bromoform	ND	1.0	106	92	14.1				70 - 130	30
Bromomethane	ND	1.0	106	106	0.0				70 - 130	30

QA/QC Data

SDG I.D.: GCA61367

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	1.0	99	100	1.0				70 - 130	30	
Carbon tetrachloride	ND	1.0	103	100	3.0				70 - 130	30	
Chlorobenzene	ND	1.0	99	97	2.0				70 - 130	30	
Chloroethane	ND	1.0	98	97	1.0				70 - 130	30	
Chloroform	ND	1.0	94	87	7.7				70 - 130	30	
Chloromethane	ND	1.0	102	100	2.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	99	94	5.2				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	101	89	12.6				70 - 130	30	
Dibromochloromethane	ND	0.50	108	100	7.7				70 - 130	30	
Dibromomethane	ND	1.0	101	87	14.9				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	130	136	4.5				70 - 130	30	I
Ethylbenzene	ND	1.0	102	101	1.0				70 - 130	30	
Hexachlorobutadiene	ND	0.40	108	113	4.5				70 - 130	30	
Isopropylbenzene	ND	1.0	99	103	4.0				70 - 130	30	
m&p-Xylene	ND	1.0	100	97	3.0				70 - 130	30	
Methyl ethyl ketone	ND	5.0	71	59	18.5				70 - 130	30	I
Methyl t-butyl ether (MTBE)	ND	1.0	98	76	25.3				70 - 130	30	
Methylene chloride	ND	1.0	91	105	14.3				70 - 130	30	
Naphthalene	ND	1.0	99	94	5.2				70 - 130	30	
n-Butylbenzene	ND	1.0	100	97	3.0				70 - 130	30	
n-Propylbenzene	ND	1.0	100	100	0.0				70 - 130	30	
o-Xylene	ND	1.0	102	98	4.0				70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	99	0.0				70 - 130	30	
sec-Butylbenzene	ND	1.0	102	100	2.0				70 - 130	30	
Styrene	ND	1.0	101	97	4.0				70 - 130	30	
tert-Butylbenzene	ND	1.0	98	99	1.0				70 - 130	30	
Tetrachloroethene	ND	1.0	104	98	5.9				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	84	69	19.6				70 - 130	30	I
Toluene	ND	1.0	104	97	7.0				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	102	100	2.0				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	97	82	16.8				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	102	93	9.2				70 - 130	30	
Trichloroethene	ND	1.0	99	98	1.0				70 - 130	30	
Trichlorofluoromethane	ND	1.0	103	104	1.0				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	114	115	0.9				70 - 130	30	
Vinyl chloride	ND	1.0	110	112	1.8				70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	100	97	3.0				70 - 130	30	
% Bromofluorobenzene	96	%	98	94	4.2				70 - 130	30	
% Dibromofluoromethane	99	%	101	91	10.4				70 - 130	30	
% Toluene-d8	93	%	101	99	2.0				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 433113 (ug/L), QC Sample No: CA63410 (CA61367)

Semivolatiles (SIM) - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	0.50	64	67	4.6				30 - 130	20	
2-Methylnaphthalene	ND	0.02	66	66	0.0				30 - 130	20	
Acenaphthene	ND	0.02	65	60	8.0				30 - 130	20	
Acenaphthylene	ND	0.02	61	61	0.0				30 - 130	20	
Anthracene	ND	0.02	73	70	4.2				30 - 130	20	
Benz(a)anthracene	ND	0.02	74	75	1.3				30 - 130	20	
Benzo(a)pyrene	ND	0.02	65	42	43.0				30 - 130	20	r

QA/QC Data

SDG I.D.: GCA61367

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(b)fluoranthene	ND	0.02	65	60	8.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	60	50	18.2				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	81	74	9.0				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.10	85	92	7.9				30 - 130	20	
Chrysene	ND	0.02	72	63	13.3				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	62	61	1.6				30 - 130	20	
Dibenzofuran	ND	0.05	64	64	0.0				30 - 130	20	
Fluoranthene	ND	0.02	68	72	5.7				30 - 130	20	
Fluorene	ND	0.02	67	67	0.0				30 - 130	20	
Hexachlorobenzene	ND	0.02	77	83	7.5				30 - 130	20	
Hexachlorobutadiene	ND	0.05	57	62	8.4				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	35	43	20.5				30 - 130	20	
Hexachloroethane	ND	0.05	50	53	5.8				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	61	55	10.3				30 - 130	20	
Naphthalene	ND	0.02	58	61	5.0				30 - 130	20	
Nitrobenzene	ND	0.05	62	66	6.3				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	77	89	14.5				30 - 130	20	
Pentachlorophenol	ND	0.20	96	114	17.1				30 - 130	20	
Phenanthrene	ND	0.02	72	71	1.4				30 - 130	20	
Pyrene	ND	0.02	68	56	19.4				30 - 130	20	
Pyridine	ND	0.50	43	43	0.0				30 - 130	20	
% 2,4,6-Tribromophenol	78	%	79	94	17.3				15 - 110	20	
% 2-Fluorobiphenyl	61	%	63	64	1.6				30 - 130	20	
% 2-Fluorophenol	53	%	44	45	2.2				15 - 110	20	
% Nitrobenzene-d5	66	%	55	62	12.0				30 - 130	20	
% Phenol-d5	63	%	43	24	56.7				15 - 110	20	r
% Terphenyl-d14	76	%	75	79	5.2				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 433113 (ug/L), QC Sample No: CA63410 (CA61367)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5	63	69	9.1				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	59	57	3.4				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	81	33	84.2				30 - 130	20	r
1,3-Dichlorobenzene	ND	1.0	56	53	5.5				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	57	58	1.7				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	76	79	3.9				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	72	74	2.7				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	68	75	9.8				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	76	80	5.1				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	75	80	6.5				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	87	84	3.5				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	78	82	5.0				30 - 130	20	
2-Chloronaphthalene	ND	3.5	70	69	1.4				30 - 130	20	
2-Chlorophenol	ND	1.0	53	56	5.5				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	64	61	4.8				30 - 130	20	
2-Nitroaniline	ND	3.5	128	128	0.0				30 - 130	20	
2-Nitrophenol	ND	1.0	74	78	5.3				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	66	67	1.5				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	82	82	0.0				30 - 130	20	

QA/QC Data

SDG I.D.: GCA61367

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
3-Nitroaniline	ND	5.0	97	97	0.0				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	81	82	1.2				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	76	77	1.3				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	82	93	12.6				30 - 130	20	
4-Chloroaniline	ND	3.5	82	82	0.0				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	73	73	0.0				30 - 130	20	
4-Nitroaniline	ND	5.0	85	80	6.1				30 - 130	20	
4-Nitrophenol	ND	1.0	87	87	0.0				15 - 130	20	
Acetophenone	ND	3.5	68	69	1.5				30 - 130	20	
Aniline	ND	3.5	63	63	0.0				30 - 130	20	
Benzidine	ND	4.5	36	36	0.0				30 - 130	20	
Benzoic acid	ND	10	59	92	43.7				30 - 130	20	r
Benzyl butyl phthalate	ND	1.5	83	24	110.3				30 - 130	20	l,r
Bis(2-chloroethoxy)methane	ND	3.5	66	66	0.0				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	51	53	3.8				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	46	50	8.3				30 - 130	20	
Carbazole	ND	5.0	85	85	0.0				30 - 130	20	
Diethyl phthalate	ND	1.5	80	78	2.5				30 - 130	20	
Dimethylphthalate	ND	1.5	80	75	6.5				30 - 130	20	
Di-n-butylphthalate	ND	1.5	83	80	3.7				30 - 130	20	
Di-n-octylphthalate	ND	1.5	84	82	2.4				30 - 130	20	
Isophorone	ND	3.5	70	76	8.2				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	46	50	8.3				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	73	78	6.6				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	71	56	23.6				30 - 130	20	r
Phenol	ND	1.0	53	50	5.8				15 - 130	20	
% 2,4,6-Tribromophenol	80	%	87	86	1.2				15 - 110	20	
% 2-Fluorobiphenyl	63	%	67	66	1.5				30 - 130	20	
% 2-Fluorophenol	42	%	42	42	0.0				15 - 110	20	
% Nitrobenzene-d5	63	%	67	67	0.0				30 - 130	20	
% Phenol-d5	53	%	48	23	70.4				15 - 110	20	r
% Terphenyl-d14	75	%	82	83	1.2				30 - 130	20	

Comment:

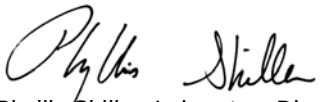
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

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.
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
June 13, 2018

Wednesday, June 13, 2018

Criteria: CT: GWP, RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA61367 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA61367	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	1.0	0.2	0.2	ug/L
CA61367	$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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

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

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

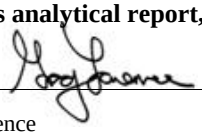
Laboratory Sample ID(s): CA61367 ***Sampling Date(s):*** 5/31/2018

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, 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, June 13, 2018

Name of Laboratory Phoenix Environmental Labs, Inc.

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 13, 2018

SDG I.D.: GCA61367

SDG Comments

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

Cyanide Narration

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

Instrument:

LACHAT 06/05/18-1 Dustin Harrison, Greg Danielewski, Chemist 06/05/18

CA61367

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 433119 (CA61339)

CA61367

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-FID84 06/05/18-1 Jeff Bucko, Chemist 06/05/18

CA61367

The initial calibration (ETPH525I) 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 433110 (CA61339)

CA61367

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.

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

June 13, 2018

SDG I.D.: GCA61367

Mercury Narration

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

Instrument:

MERLIN 06/01/18 07:48 Rick Schweitzer, Chemist 06/01/18

CA61367

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 432816 (CA61704)

CA61367

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 06/01/18 07:05 Emily Kolominskaya, Chemist 06/01/18

CA61367

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 432732 (CA61539)

CA61367

All LCS recoveries were within 75 - 125 with the following exceptions: None.

ICPMS Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

June 13, 2018

SDG I.D.: GCA61367

ICPMS Metals Narration

Instrument:

ICPMS 06/01/18 16:00 Cindy Pearce, Chemist 06/01/18

CA61367

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 samples did not meet internal standard criteria: None.

QC (Batch Specific):

Batch 432747 (CA61339)

CA61367

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 433113 (Samples: CA61367): -----

The LCSD recovery is below the method criteria. The LCS recovery is acceptable. A slight low bias is possible. (Benzyl butyl phthalate)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes. These analytes were not reported in the sample(s). A slight variability is possible. (1,2-Diphenylhydrazine, Benzoic acid, Benzyl butyl phthalate, N-Nitrosodiphenylamine, % Phenol-d5)

Instrument:

CHEM27 06/07/18-1 Damien Drobinski, Chemist 06/07/18

CA61367

Initial Calibration Verification (CHEM27/SPLIT_0518):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 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 (CHEM27/0607_02-SPLIT_0518):
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 433113 (CA63410)

CA61367

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

June 13, 2018

SDG I.D.: GCA61367

SVOA Narration

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: Benzyl butyl phthalate(24%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % Phenol-d5(70.4%), 1,2-Diphenylhydrazine(84.2%), Benzoic acid(43.7%), Benzyl butyl phthalate(110.3%), N-Nitrosodiphenylamine(23.6%)
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 433113 (Samples: CA61367): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes. This analyte was not reported in the sample(s). No significant variability is suspected. (Benzo(a)pyrene, % Phenol-d5)

Instrument:

CHEM25 06/06/18-1 Damien Drobinski, Chemist 06/06/18

CA61367

Initial Calibration Verification (CHEM25/SIM_0410):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.265 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0606_02-SIM_0410):
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 433113 (CA63410)

CA61367

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: % Phenol-d5(56.7%), Benzo(a)pyrene(43.0%)
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

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

June 13, 2018

SDG I.D.: GCA61367

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 433254 (Samples: CA61367): -----

The LCS/LCSD recovery for one analyte is below the lower range but within the method criteria. A low bias for this analyte is possible. (Acetone)

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. (Dichlorodifluoromethane)

The LCSD recovery is below the lower range but within the method criteria. The LCS recovery is acceptable. No significant bias is suspected. (Methyl ethyl ketone, Tetrahydrofuran (THF))

Instrument:

CHEM17 06/04/18-1 Michael Hahn, Chemist 06/04/18

CA61367

Initial Calibration Verification (CHEM17/VT-S0603):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 40% (20%), Acetone 28% (20%), Methyl ethyl ketone 27% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.036 (0.05), Acetone 0.068 (0.1), Methyl ethyl ketone 0.091 (0.1), Tetrahydrofuran (THF) 0.048 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0604_02-VT-S0603):
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 0.036 (0.05), Tetrahydrofuran (THF) 0.039 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 433254 (CA61344)

CA61367

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(55%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(55%), Dichlorodifluoromethane(136%), Methyl ethyl ketone(59%), Tetrahydrofuran (THF)(69%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 3.2C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] 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

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: LEWilley@tobeboard.com

Customer: Tighe + Bond
Address: 213 Court St
Suite 1102
Middletown CT

Project: Rockville mgp
Report to: Lynn Willey
Invoice to: Tighe + Bond

Project P.O: 140755448

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 5/31/19

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 Pb	RCI Cyanides	Cyanide	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container [ ] oz	GL Soil container [ ] oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber (1000ml) [ ] As is [ ] H2SO4	PL As is [ ] 250ml	PL H2SO4 [ ] 250ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
61367	MW-70	GW	5/31/19	07:45	X	X	X	X	X					3	3			1	1		

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	5/31/19	0947

Comments, Special Requirements or Regulations:
Eversource 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
[X] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[X] Other RES VL

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[ ] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[X] Other Checked

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[X] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Wednesday, May 23, 2018

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: CA48712 - CA48718

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 23, 2018

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:		05/16/18	9:35
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48712

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	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.016	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/16/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.070	0.067	mg/L	1	05/17/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/17/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	05/17/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: CA48712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: CA48712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	5.2	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	94		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/19/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/19/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	103		%	1	05/19/18	DD	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	05/19/18	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	05/19/18	DD	15 - 110 %
% Nitrobenzene-d5	70		%	1	05/19/18	DD	30 - 130 %
% Phenol-d5	59		%	1	05/19/18	DD	15 - 110 %
% Terphenyl-d14	79		%	1	05/19/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-17S

Phoenix I.D.: CA48712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	51		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	86		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	68		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	81		%	1	05/18/18	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.

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.

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
May 23, 2018
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

May 23, 2018

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:		05/16/18	10:10
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48713

Project ID: ROCKVILLE MGP
Client ID: MW-5S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.079	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	0.013	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/16/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.34	0.067	mg/L	1	05/17/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/17/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	05/17/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5S

Phoenix I.D.: CA48713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5S

Phoenix I.D.: CA48713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	2.7	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/19/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5S

Phoenix I.D.: CA48713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/19/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	97		%	1	05/19/18	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	05/19/18	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	05/19/18	DD	15 - 110 %
% Nitrobenzene-d5	64		%	1	05/19/18	DD	30 - 130 %
% Phenol-d5	54		%	1	05/19/18	DD	15 - 110 %
% Terphenyl-d14	79		%	1	05/19/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	5.5	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	1.9	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	1.8	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	0.27	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	0.27	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	0.68	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	1.5	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	5.1	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5S

Phoenix I.D.: CA48713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	1.9	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	0.89	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	2.3	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	44		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	77		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	60		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	75		%	1	05/18/18	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.

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
May 23, 2018
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

May 23, 2018

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:		05/16/18	12:00
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48714

Project ID: ROCKVILLE MGP
Client ID: MW-5D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.125	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	0.013	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	0.009	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/16/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.074	0.066	mg/L	1	05/17/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	05/17/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	05/17/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5D

Phoenix I.D.: CA48714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5D

Phoenix I.D.: CA48714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/19/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/19/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5D

Phoenix I.D.: CA48714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/19/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/19/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/19/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	75		%	1	05/19/18	DD	15 - 110 %
% 2-Fluorobiphenyl	80		%	1	05/19/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	05/19/18	DD	15 - 110 %
% Nitrobenzene-d5	72		%	1	05/19/18	DD	30 - 130 %
% Phenol-d5	48		%	1	05/19/18	DD	15 - 110 %
% Terphenyl-d14	84		%	1	05/19/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-5D

Phoenix I.D.: CA48714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	40		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	84		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	55		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	82		%	1	05/18/18	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.

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.

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
May 23, 2018
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

May 23, 2018

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:		05/16/18	13:45
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48715

Project ID: ROCKVILLE MGP
Client ID: MW-8SR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.056	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	0.003	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	0.008	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	0.011	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/16/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	05/18/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/18/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	05/18/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-8SR

Phoenix I.D.: CA48715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-8SR

Phoenix I.D.: CA48715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	92		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/21/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-8SR
Phoenix I.D.: CA48715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/21/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	80		%	1	05/21/18	DD	15 - 110 %
% 2-Fluorobiphenyl	76		%	1	05/21/18	DD	30 - 130 %
% 2-Fluorophenol	37		%	1	05/21/18	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	05/21/18	DD	30 - 130 %
% Phenol-d5	42		%	1	05/21/18	DD	15 - 110 %
% Terphenyl-d14	93		%	1	05/21/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	0.41	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	0.13	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	0.44	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	1.1	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.72	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	1.1	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.72	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	0.55	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.26	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	0.39	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-8SR

Phoenix I.D.: CA48715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.78	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	0.09	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	0.93	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	50		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	94		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	69		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	80		%	1	05/18/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 23, 2018
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

May 23, 2018

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:		05/16/18	14:45
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48716

Project ID: ROCKVILLE MGP
Client ID: MW-2SR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.121	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	0.004	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/17/18	P/R	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/18/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/18/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	05/18/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-2SR

Phoenix I.D.: CA48716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-2SR

Phoenix I.D.: CA48716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	4.6	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/21/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-2SR

Phoenix I.D.: CA48716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/21/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	05/21/18	DD	15 - 110 %
% 2-Fluorobiphenyl	75		%	1	05/21/18	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	05/21/18	DD	15 - 110 %
% Nitrobenzene-d5	75		%	1	05/21/18	DD	30 - 130 %
% Phenol-d5	51		%	1	05/21/18	DD	15 - 110 %
% Terphenyl-d14	90		%	1	05/21/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	1.3	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	1.2	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	1.3	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	0.92	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	0.43	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	0.41	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.22	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	0.32	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.23	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	0.43	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.06	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	0.19	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	1.7	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	1.6	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-2SR

Phoenix I.D.: CA48716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.20	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	3.6	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	3.4	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	2.4	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	57		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	100		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	77		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	73		%	1	05/18/18	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.

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
May 23, 2018
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

May 23, 2018

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:		05/16/18	16:35
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48717

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	05/18/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/18/18	MA	SW6010C
Barium	0.365	0.002	mg/L	1	05/18/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/18/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/17/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/21/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/18/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/18/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/18/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/18/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/21/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/17/18	P/R	SW3510C/SW3520C
Mercury Digestion	Completed				05/17/18	Q/Q	SW7470A
Semi-Volatile Extraction	Completed				05/16/18	P/D/RD	SW3520C
Total Metals Digestion	Completed				05/17/18	AG	
Total Metals Digestion MS	Completed				05/17/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/18/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/18/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	05/18/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
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Phoenix I.D.: CA48717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/17/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/17/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/17/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/17/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C

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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	05/17/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/17/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/17/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/17/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/17/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/17/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/17/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	05/17/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/17/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/21/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/21/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D

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Project ID: ROCKVILLE MGP
Client ID: MW-2BR

Phoenix I.D.: CA48717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/21/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/21/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/21/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	05/21/18	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	05/21/18	DD	30 - 130 %
% 2-Fluorophenol	37		%	1	05/21/18	DD	15 - 110 %
% Nitrobenzene-d5	58		%	1	05/21/18	DD	30 - 130 %
% Phenol-d5	43		%	1	05/21/18	DD	15 - 110 %
% Terphenyl-d14	86		%	1	05/21/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/18/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/18/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-2BR

Phoenix I.D.: CA48717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/18/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/18/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/18/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	90		%	1	05/18/18	DD	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	05/18/18	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	05/18/18	DD	15 - 110 %
% Nitrobenzene-d5	82		%	1	05/18/18	DD	30 - 130 %
% Phenol-d5	69		%	1	05/18/18	DD	15 - 110 %
% Terphenyl-d14	76		%	1	05/18/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 23, 2018
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

May 23, 2018

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:		05/16/18	
Location Code:	TIGHE-DAS	Received by:	B	05/16/18	18:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-0445				

Laboratory Data

SDG ID: GCA48712
Phoenix ID: CA48718

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	05/16/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/16/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/16/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/16/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/16/18	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA48718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	05/16/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/16/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/16/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/16/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/16/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/16/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/16/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/16/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/16/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/16/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/16/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/16/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	05/16/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/16/18	MH	70 - 130 %
% Dibromofluoromethane	100		%	1	05/16/18	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CA48718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	93		%	1	05/16/18	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If there are any questions regarding this data, please call Phoenix Client Services.
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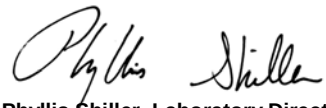

Phyllis Shiller, Laboratory Director
May 23, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

May 23, 2018

QA/QC Data

SDG I.D.: GCA48712

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 430967 (mg/L), QC Sample No: CA48619 5X (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0015	<0.0005	<0.0005	NC	104			104			75 - 125	20
QA/QC Batch 430825 (mg/L), QC Sample No: CA48714 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	89.3			92.1			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 430969 (mg/L), QC Sample No: CA49065 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)													
ICP Metals - Aqueous													
Antimony	BRL	0.0025	<0.005	<0.005	NC	97.9			104			75 - 125	20
Arsenic	BRL	0.0020	<0.004	<0.004	NC	93.9			101			75 - 125	20
Barium	BRL	0.0010	0.011	0.011	0	97.2			105			75 - 125	20
Beryllium	BRL	0.0005	<0.001	<0.001	NC	97.7			105			75 - 125	20
Cadmium	BRL	0.0005	<0.001	<0.001	NC	95.0			103			75 - 125	20
Chromium	BRL	0.0005	<0.001	<0.001	NC	98.2			103			75 - 125	20
Copper	BRL	0.0025	<0.005	<0.005	NC	102			105			75 - 125	20
Lead	BRL	0.0010	<0.002	<0.002	NC	97.7			105			75 - 125	20
Nickel	BRL	0.001	0.006	0.006	0	95.1			103			75 - 125	20
Selenium	BRL	0.0050	<0.010	<0.010	NC	89.1			99.3			75 - 125	20
Silver	BRL	0.0005	<0.001	<0.001	NC	95.4			102			75 - 125	20
Vanadium	BRL	0.0010	<0.002	<0.002	NC	97.0			102			75 - 125	20
Zinc	BRL	0.0010	0.014	0.014	0	95.6			104			75 - 125	20

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QA/QC Report

May 23, 2018

QA/QC Data

SDG I.D.: GCA48712

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 431026 (mg/L), QC Sample No: CA48712 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)														
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	99.5			112			90 - 110	20	m
Comment:														
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils														

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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QA/QC Report

May 23, 2018

QA/QC Data

SDG I.D.: GCA48712

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 430703 (mg/L), QC Sample No: CA48435 (CA48712, CA48713, CA48714, CA48715)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	92	92	0.0				60 - 120	30
% n-Pentacosane	86	%	80	78	2.5				50 - 150	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 430789 (ug/L), QC Sample No: CA48617 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.50	64	63	1.6				30 - 130	20
2-Methylnaphthalene	ND	0.02	62	59	5.0				30 - 130	20
Acenaphthene	ND	0.02	72	72	0.0				30 - 130	20
Acenaphthylene	ND	0.02	64	67	4.6				30 - 130	20
Anthracene	ND	0.02	69	73	5.6				30 - 130	20
Benz(a)anthracene	ND	0.02	76	80	5.1				30 - 130	20
Benzo(a)pyrene	ND	0.02	69	77	11.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	75	82	8.9				30 - 130	20
Benzo(ghi)perylene	ND	0.02	65	69	6.0				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	76	88	14.6				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	87	87	0.0				30 - 130	20
Chrysene	ND	0.02	82	84	2.4				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	71	83	15.6				30 - 130	20
Dibenzofuran	ND	0.05	71	72	1.4				30 - 130	20
Fluoranthene	ND	0.02	73	66	10.1				30 - 130	20
Fluorene	ND	0.02	72	73	1.4				30 - 130	20
Hexachlorobenzene	ND	0.02	78	78	0.0				30 - 130	20
Hexachlorobutadiene	ND	0.05	56	50	11.3				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	35	38	8.2				30 - 130	20
Hexachloroethane	ND	0.05	53	44	18.6				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	68	77	12.4				30 - 130	20
Naphthalene	ND	0.02	58	54	7.1				30 - 130	20
Nitrobenzene	ND	0.05	66	61	7.9				30 - 130	20
Pentachloronitrobenzene	ND	0.10	94	93	1.1				30 - 130	20
Pentachlorophenol	ND	0.20	98	102	4.0				30 - 130	20
Phenanthrene	ND	0.02	76	77	1.3				30 - 130	20
Pyrene	ND	0.02	77	78	1.3				30 - 130	20
Pyridine	ND	0.50	18	20	10.5				30 - 130	20
% 2,4,6-Tribromophenol	88	%	94	96	2.1				15 - 110	20
% 2-Fluorobiphenyl	73	%	71	70	1.4				30 - 130	20
% 2-Fluorophenol	60	%	42	35	18.2				15 - 110	20
% Nitrobenzene-d5	73	%	63	58	8.3				30 - 130	20

QA/QC Data

SDG I.D.: GCA48712

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% Phenol-d5	66	%		44	41	7.1				15 - 110	20	
% Terphenyl-d14	77	%		76	78	2.6				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%)

QA/QC Batch 430789 (ug/L), QC Sample No: CA48617 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5		67	60	11.0				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0		61	48	23.9				30 - 130	20	r
1,2-Diphenylhydrazine	ND	1.6		85	92	7.9				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0		58	46	23.1				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0		58	47	21.0				30 - 130	20	r
2,4,5-Trichlorophenol	ND	1.0		87	92	5.6				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0		83	87	4.7				30 - 130	20	
2,4-Dichlorophenol	ND	1.0		74	72	2.7				30 - 130	20	
2,4-Dimethylphenol	ND	1.0		75	74	1.3				30 - 130	20	
2,4-Dinitrophenol	ND	1.0		58	59	1.7				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5		100	105	4.9				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5		91	94	3.2				30 - 130	20	
2-Chloronaphthalene	ND	3.5		73	73	0.0				30 - 130	20	
2-Chlorophenol	ND	1.0		58	48	18.9				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0		63	58	8.3				30 - 130	20	
2-Nitroaniline	ND	3.5		134	145	7.9				30 - 130	20	I
2-Nitrophenol	ND	1.0		77	74	4.0				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0		64	60	6.5				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0		95	107	11.9				30 - 130	20	
3-Nitroaniline	ND	5.0		89	102	13.6				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0		103	112	8.4				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5		84	91	8.0				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0		86	91	5.6				30 - 130	20	
4-Chloroaniline	ND	3.5		33	66	66.7				30 - 130	20	r
4-Chlorophenyl phenyl ether	ND	1.0		81	81	0.0				30 - 130	20	
4-Nitroaniline	ND	5.0		89	90	1.1				30 - 130	20	
4-Nitrophenol	ND	1.0		96	102	6.1				15 - 130	20	
Acetophenone	ND	3.5		71	63	11.9				30 - 130	20	
Aniline	ND	3.5		<10	30	NC				30 - 130	20	I
Benzidine	ND	4.5		<10	16	NC				30 - 130	20	I
Benzoic acid	ND	10		80	76	5.1				30 - 130	20	
Benzyl butyl phthalate	ND	1.5		103	106	2.9				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5		66	67	1.5				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0		53	44	18.6				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0		51	44	14.7				30 - 130	20	
Carbazole	ND	5.0		91	95	4.3				30 - 130	20	
Diethyl phthalate	ND	1.5		98	99	1.0				30 - 130	20	
Dimethylphthalate	ND	1.5		88	93	5.5				30 - 130	20	
Di-n-butylphthalate	ND	1.5		97	102	5.0				30 - 130	20	
Di-n-octylphthalate	ND	1.5		112	118	5.2				30 - 130	20	
Isophorone	ND	3.5		69	71	2.9				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0		56	44	24.0				30 - 130	20	r
N-Nitrosodi-n-propylamine	ND	3.5		71	65	8.8				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5		83	86	3.6				30 - 130	20	
Phenol	ND	1.0		50	47	6.2				15 - 130	20	

QA/QC Data

SDG I.D.: GCA48712

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% 2,4,6-Tribromophenol	90	%		90	97	7.5				15 - 110	20	
% 2-Fluorobiphenyl	76	%		77	77	0.0				30 - 130	20	
% 2-Fluorophenol	50	%		43	35	20.5				15 - 110	20	
% Nitrobenzene-d5	68	%		67	60	11.0				30 - 130	20	
% Phenol-d5	61	%		48	44	8.7				15 - 110	20	
% Terphenyl-d14	84	%		84	92	9.1				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 430854 (ug/L), QC Sample No: CA48618 (CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0		92	96	4.3				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0		90	94	4.3				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50		90	100	10.5				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0		84	84	0.0				70 - 130	30	
1,1-Dichloroethane	ND	1.0		91	94	3.2				70 - 130	30	
1,1-Dichloroethene	ND	1.0		96	96	0.0				70 - 130	30	
1,1-Dichloropropene	ND	1.0		91	81	11.6				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0		87	98	11.9				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0		85	94	10.1				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0		90	99	9.5				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0		94	94	0.0				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0		93	108	14.9				70 - 130	30	
1,2-Dibromoethane	ND	1.0		86	95	9.9				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0		91	96	5.3				70 - 130	30	
1,2-Dichloroethane	ND	1.0		86	81	6.0				70 - 130	30	
1,2-Dichloropropane	ND	1.0		91	85	6.8				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0		93	93	0.0				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0		92	95	3.2				70 - 130	30	
1,3-Dichloropropane	ND	1.0		85	93	9.0				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0		91	94	3.2				70 - 130	30	
2,2-Dichloropropane	ND	1.0		92	94	2.2				70 - 130	30	
2-Chlorotoluene	ND	1.0		94	94	0.0				70 - 130	30	
2-Hexanone	ND	5.0		75	91	19.3				70 - 130	30	
2-Isopropyltoluene	ND	1.0		93	96	3.2				70 - 130	30	
4-Chlorotoluene	ND	1.0		93	93	0.0				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0		75	83	10.1				70 - 130	30	
Acetone	ND	5.0		61	84	31.7				70 - 130	30	l,r
Acrylonitrile	ND	5.0		83	96	14.5				70 - 130	30	
Benzene	ND	0.70		89	80	10.7				70 - 130	30	
Bromobenzene	ND	1.0		95	97	2.1				70 - 130	30	
Bromochloromethane	ND	1.0		87	94	7.7				70 - 130	30	
Bromodichloromethane	ND	0.50		92	88	4.4				70 - 130	30	
Bromoform	ND	1.0		88	102	14.7				70 - 130	30	
Bromomethane	ND	1.0		113	115	1.8				70 - 130	30	
Carbon Disulfide	ND	1.0		103	104	1.0				70 - 130	30	
Carbon tetrachloride	ND	1.0		91	93	2.2				70 - 130	30	
Chlorobenzene	ND	1.0		89	92	3.3				70 - 130	30	
Chloroethane	ND	1.0		98	98	0.0				70 - 130	30	
Chloroform	ND	1.0		89	93	4.4				70 - 130	30	
Chloromethane	ND	1.0		98	102	4.0				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0		91	95	4.3				70 - 130	30	

QA/QC Data

SDG I.D.: GCA48712

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
cis-1,3-Dichloropropene	ND	0.40	88	85	3.5				70 - 130	30
Dibromochloromethane	ND	0.50	94	101	7.2				70 - 130	30
Dibromomethane	ND	1.0	90	89	1.1				70 - 130	30
Dichlorodifluoromethane	ND	1.0	104	104	0.0				70 - 130	30
Ethylbenzene	ND	1.0	90	93	3.3				70 - 130	30
Hexachlorobutadiene	ND	0.40	99	96	3.1				70 - 130	30
Isopropylbenzene	ND	1.0	90	91	1.1				70 - 130	30
m&p-Xylene	ND	1.0	88	91	3.4				70 - 130	30
Methyl ethyl ketone	ND	5.0	80	90	11.8				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	103	16.8				70 - 130	30
Methylene chloride	ND	1.0	87	92	5.6				70 - 130	30
Naphthalene	ND	1.0	91	103	12.4				70 - 130	30
n-Butylbenzene	ND	1.0	87	92	5.6				70 - 130	30
n-Propylbenzene	ND	1.0	89	91	2.2				70 - 130	30
o-Xylene	ND	1.0	90	93	3.3				70 - 130	30
p-Isopropyltoluene	ND	1.0	88	92	4.4				70 - 130	30
sec-Butylbenzene	ND	1.0	86	93	7.8				70 - 130	30
Styrene	ND	1.0	91	94	3.2				70 - 130	30
tert-Butylbenzene	ND	1.0	87	91	4.5				70 - 130	30
Tetrachloroethene	ND	1.0	88	82	7.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	76	92	19.0				70 - 130	30
Toluene	ND	1.0	91	83	9.2				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	94	98	4.2				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	84	83	1.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	95	104	9.0				70 - 130	30
Trichloroethene	ND	1.0	92	95	3.2				70 - 130	30
Trichlorofluoromethane	ND	1.0	95	95	0.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	96	96	0.0				70 - 130	30
Vinyl chloride	ND	1.0	98	98	0.0				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	99	102	3.0				70 - 130	30
% Bromofluorobenzene	98	%	95	98	3.1				70 - 130	30
% Dibromofluoromethane	101	%	94	99	5.2				70 - 130	30
% Toluene-d8	93	%	101	89	12.6				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 430973 (mg/L), QC Sample No: CA48716 (CA48716, CA48717)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	84	85	1.2				60 - 120	30
% n-Pentacosane	76	%	77	77	0.0				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.
r = This parameter is outside laboratory RPD specified recovery limits.

QA/QC Data

SDG I.D.: GCA48712

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
May 23, 2018

Wednesday, May 23, 2018

Criteria: CT: RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA48712 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA48713	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.68	0.05	0.077	0.077	ug/L
CA48713	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.89	0.05	0.077	0.077	ug/L
CA48713	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.9	0.05	0.3	0.3	ug/L
CA48713	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.34	0.067	0.25	0.25	mg/L
CA48715	$8270-CTSIMR	Chrysene	CT / RSR SWPC (ug/l) / APS Organics	0.55	0.05	0.54	0.54	ug/L
CA48715	$8270-CTSIMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	0.78	0.05	0.54	0.54	ug/L
CA48715	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.41	0.05	0.3	0.3	ug/L
CA48715	$8270-CTSIMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	0.44	0.05	0.3	0.3	ug/L
CA48715	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	1.1	0.05	0.3	0.3	ug/L
CA48715	$8270-CTSIMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.72	0.05	0.3	0.3	ug/L
CA48715	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.09	0.05	0.077	0.077	ug/L
CA48715	$8270-CTSIMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.72	0.05	0.3	0.3	ug/L
CA48716	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	3.4	0.05	0.077	0.077	ug/L
CA48716	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.3	0.05	0.3	0.3	ug/L
CA48716	$8270-CTSIMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	0.43	0.05	0.3	0.3	ug/L
CA48716	$8270-CTSIMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.41	0.05	0.3	0.3	ug/L
CA48716	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.19	0.05	0.077	0.077	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:***

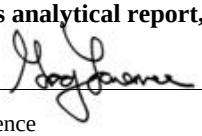
Laboratory Sample ID(s): CA48712-CA48718 ***Sampling Date(s):*** 5/16/2018

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: Cyanide 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, May 23, 2018

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

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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

May 23, 2018

SDG I.D.: GCA48712

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 431026 (Samples: CA48712, CA48713, CA48714, CA48715, CA48716, CA48717): -----

The MS recovery is above the upper range. This analyte was not reported in the sample(s). No significant bias is suspected.

Instrument:

LACHAT 05/21/18-1 Dustin Harrison, Greg Danielewski, Chemist 05/21/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

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 431026 (CA48712)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

All LCS recoveries were within 90 - 110 with the following exceptions: None.
All MS recoveries were within 90 - 110 with the following exceptions: Total Cyanide(112%)
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: 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 05/18/18-1 Jeff Bucko, Chemist 05/18/18

CA48716, CA48717

The initial calibration (ETPH406I) 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 05/17/18-1 Jeff Bucko, Chemist 05/17/18

CA48712, CA48713, CA48714, CA48715

The initial calibration (ETPH509I) 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 430703 (CA48435)

CA48712, CA48713, CA48714, CA48715

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SDG I.D.: GCA48712

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.
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.

Batch 430973 (CA48716)

CA48716, CA48717

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 05/17/18 08:35 Rick Schweitzer, Chemist 05/17/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

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 430825 (CA48714)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

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%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 05/18/18 10:30 Mike Arsenault, Chemist 05/18/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

The initial calibration met criteria.

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Certification Report

May 23, 2018

SDG I.D.: GCA48712

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.

BLUE 05/21/18 06:37 Mike Arsenault, Chemist 05/21/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

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 430969 (CA49065)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

All LCS recoveries were within 75 - 125 with the following exceptions: None.

ICPMS Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ICPMS 05/18/18 11:58 Cindy Pearce, Chemist 05/18/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

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 samples did not meet internal standard criteria: None.

QC (Batch Specific):

Batch 430967 (CA48619)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

All LCS recoveries were within 75 - 125 with the following exceptions: None.

SVOA Narration

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RCP Certification Report

May 23, 2018

SDG I.D.: GCA48712

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 430789 (Samples: CA48712, CA48713, CA48714, CA48715, CA48716, CA48717): -----

The QC recovery for one analyte is below the method criteria. A low bias for this analyte is possible. (Benzidine)

The LCS/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-Nitroaniline)

The LCS recovery is below the method criteria. The LCSD recovery is acceptable. A low bias is possible. (Aniline)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 4-Chloroaniline, N-Nitrosodimethylamine)

Instrument:

CHEM05 05/21/18-1 Damien Drobinski, Chemist 05/21/18

CA48715, CA48716, CA48717

Initial Calibration Verification (CHEM05/SPLIT_0514):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.082 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM05/0521_02-SPLIT_0514):
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 0.094 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM28 05/18/18-2 Damien Drobinski, Chemist 05/18/18

CA48712, CA48713, CA48714

Initial Calibration Verification (CHEM28/SPLIT_0403):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%), 4,6-Dinitro-2-methylphenol 29% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.067 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM28/0518_06A-SPLIT_0403):
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 59%L (30%)
The following compounds did not meet maximum % deviations: 2,4-Dinitrophenol 59%L (40%)
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):

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RCP Certification Report

May 23, 2018

SDG I.D.: GCA48712

SVOA Narration

Batch 430789 (CA48617)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

All LCS recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(134%), Aniline(<10%), Benzidine(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(145%), Benzidine(16%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: 1,2-Dichlorobenzene(23.9%), 1,3-Dichlorobenzene(23.1%), 1,4-Dichlorobenzene(21.0%), 4-Chloroaniline(66.7%), N-Nitrosodimethylamine(24.0%)
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%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 430789 (Samples: CA48712, CA48713, CA48714, CA48715, CA48716, CA48717): -----

The LCS/LCSD recovery is below the lower range. A low bias for this analyte is possible. (Pyridine)

Instrument:

CHEM25 05/18/18-1 Damien Drobinski, Chemist 05/18/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

Initial Calibration Verification (CHEM25/SIM_0410):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.265 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0518_02-SIM_0410):
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: Pentachloronitrobenzene 40%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 430789 (CA48617)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717

All LCS recoveries were within 30 - 130 with the following exceptions: Pyridine(18%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Pyridine(20%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

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RCP Certification Report

May 23, 2018

SDG I.D.: GCA48712

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 430854 (Samples: CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718): -----

The LCS recovery is below the lower range, but within the method criteria. The LCSD recovery is acceptable. No significant bias is suspected. (Acetone)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Acetone)

Instrument:

CHEM17 05/16/18-2 Michael Hahn, Chemist 05/16/18

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718

Initial Calibration Verification (CHEM17/VT-S0516):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 21% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.039 (0.05), 2-Hexanone 0.088 (0.1), Acetone 0.049 (0.1), Bromoform 0.094 (0.1), Methyl ethyl ketone 0.071 (0.1), Tetrahydrofuran (THF) 0.047 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0516_15-VT-S0516):
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 0.040 (0.05), Bromoform 0.099 (0.1), Tetrahydrofuran (THF) 0.043 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 430854 (CA48618)

CA48712, CA48713, CA48714, CA48715, CA48716, CA48717, CA48718

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(61%)
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: Acetone(31.7%)
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 2.3C with cooling initiated.
(Note acceptance criteria for relevant matrices 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 2.3° Pg 1 of 1

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: lwinsky@tighebond.com

Customer: Tighe + Bond
Address: 213 Court Street
Middletown, CT

Project: Rockville MGP
Report to: Lynn Winsky
Invoice to: Tighe + Bond

Project P.O: 14-0155-0401.17

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 5/16/18

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	ETPH	SVOC	RCP metals	Total Cyanide	GL Amber 8 oz w/H3PO4	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 [ ] HCl	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
48712	MW-17S	GW	5/16/18	9:35	X	X	X	X	X					3	3			1	1		
48713	MW-5S			10:10	X	X	X	X	X					3	3			1	1		
48714	MW-5D			10:40	X	X	X	X	X					3	3			1	1		
48715	MW-9SR			13:45	X	X	X	X	X					3	3			1	1		
48716	MW-25R			14:45	X	X	X	X	X					3	3			1	1		
48717	MW-28R			16:35	X	X	X	X	X					3	3			1	1		
48718	Trip Blank				X									2							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	5/16/18	18:28

Comments, Special Requirements or Regulations:

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 Trackit

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ 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 22
Page 1054 of 1282

Client Services

From: Lynn E. Willey <LEWilley@tighebond.com>
Sent: Wednesday, May 16, 2018 9:03 PM
To: Client Services
Cc: Benjamin P. Caswell
Subject: Re: Phoenix Labs - GCA48712, ROCKVILLE MGP - COC Acknowledgement

Thank you for the log in information. The samples do not need to be compared to GA GWPC.

It needs to be SWPC and Res Volatization.

Thank you

Sent from my iPhone

On May 16, 2018, at 7:44 PM, "clientservices@phoenixlabs.com" <clientservices@phoenixlabs.com> wrote:

> Lynn,
>
> Please email client services only if you have a Price Quote# for this SDG, a Quote# was not listed on the COC.
>
> Purchase Order#:14-0755-0445
>
> GCA48712 Criteria:
> GROUND WATER(7): CT GWP (GA GW Protection), CT SWP (SW Protection)
>
> Please email client services only if you require criteria different than what is listed.
>
> Delivery group GCA48712 (ROCKVILLE MGP) has been logged in for the following samples:

Phoenix Id	Client Id
CA48712	MW-17S
CA48713	MW-5S
CA48714	MW-5D
CA48715	MW-8SR
CA48716	MW-2SR
CA48717	MW-2BR
CA48718	TRIP BL ANK

> The samples were received at 2.3C with cooling initiated. (Note acceptance criteria for relevant matrices 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.

<Sample Acknowledgement.pdf>

Sarah Bell

From: Benjamin P. Caswell <BCaswell@tighebond.com>
Sent: Monday, May 21, 2018 7:59 AM
To: Sarah Bell
Cc: Lynn E. Willey
Subject: GCA48712 - DAS Rate

Good morning Sarah,

I forgot to indicate on the COC for GCA48712 that the job is for Eversource-Rockville and should be billed using the DAS rates under quote number TI012517BA. We will have a bunch more groundwater samples coming in this week and I will make sure to put "DAS Rates" on the COC.

Thanks!
Ben

Benjamin Caswell | Environmental Scientist
Tighe&Bond | 213 Court St., Suite 1100 | Middletown, CT 06457 | 860.852.5220 | 401.787.0905 (cell)
www.tighebond.com | Follow us on: Twitter Facebook LinkedIn



PHOENIX
Environmental Laboratories, Inc.

Thursday, May 31, 2018

Attn: Ms. Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: CA51710 - CA51719

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	9:25
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51710

Project ID: ROCKVILLE MGP
Client ID: MW-4S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.084	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.030	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	0.011	0.010	mg/L	1	05/24/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/22/18	P/R/D	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4S

Phoenix I.D.: CA51710

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4S

Phoenix I.D.: CA51710

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	1.7	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/24/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/24/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/24/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/24/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/24/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4S

Phoenix I.D.: CA51710

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/24/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/24/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/24/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	05/24/18	DD	15 - 110 %
% 2-Fluorobiphenyl	78		%	1	05/24/18	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	05/24/18	DD	15 - 110 %
% Nitrobenzene-d5	71		%	1	05/24/18	DD	30 - 130 %
% Phenol-d5	50		%	1	05/24/18	DD	15 - 110 %
% Terphenyl-d14	83		%	1	05/24/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/24/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/24/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Acenaphthylene	0.22	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Anthracene	0.13	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Benzo(a)pyrene	0.07	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/24/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/24/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	0.02	0.01	ug/L	1	05/24/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/24/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4S

Phoenix I.D.: CA51710

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/24/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/24/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.07	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/24/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/24/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/24/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/24/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/24/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/24/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	05/24/18	DD	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	05/24/18	DD	30 - 130 %
% 2-Fluorophenol	50		%	1	05/24/18	DD	15 - 110 %
% Nitrobenzene-d5	84		%	1	05/24/18	DD	30 - 130 %
% Phenol-d5	72		%	1	05/24/18	DD	15 - 110 %
% Terphenyl-d14	85		%	1	05/24/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	11:45
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51711

Project ID: ROCKVILLE MGP
Client ID: MW-4D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.281	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	0.018	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.013	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/24/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4D

Phoenix I.D.: CA51711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4D

Phoenix I.D.: CA51711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4D

Phoenix I.D.: CA51711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.95	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	36		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	51		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	43		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	86		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.95	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4D

Phoenix I.D.: CA51711

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.76	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	57		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	54		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	79		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	14:20
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51712

Project ID: ROCKVILLE MGP
Client ID: MW-6S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.031	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	0.040	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.008	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.004	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/24/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6S

Phoenix I.D.: CA51712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6S

Phoenix I.D.: CA51712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	92		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6S

Phoenix I.D.: CA51712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	74		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	53		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	44		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	82		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6S

Phoenix I.D.: CA51712

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	66		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	57		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	72		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	15:45
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51713

Project ID: ROCKVILLE MGP
Client ID: MW-6D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.073	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	0.022	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.006	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6D

Phoenix I.D.: CA51713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6D

Phoenix I.D.: CA51713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	92		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6D

Phoenix I.D.: CA51713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	35		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	44		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	40		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	79		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	0.85	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	0.15	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	0.05	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	0.13	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	0.53	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-6D

Phoenix I.D.: CA51713

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	0.06	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	0.24	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	56		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	40		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	51		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	52		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	72		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	9:32
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51714

Project ID: ROCKVILLE MGP
Client ID: MW-11S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.042	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.004	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11S

Phoenix I.D.: CA51714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11S

Phoenix I.D.: CA51714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11S

Phoenix I.D.: CA51714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	79		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	38		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	49		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	44		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	75		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11S

Phoenix I.D.: CA51714

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	55		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	43		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	57		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	55		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	67		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	10:57
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51715

Project ID: ROCKVILLE MGP
Client ID: MW-11D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.061	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	0.003	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.005	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	77		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11D

Phoenix I.D.: CA51715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/23/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/23/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/23/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/23/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11D

Phoenix I.D.: CA51715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/23/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/23/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/23/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/23/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/23/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/23/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	05/23/18	MH	70 - 130 %
% Toluene-d8	93		%	1	05/23/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11D

Phoenix I.D.: CA51715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	33		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	46		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	41		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	82		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-11D

Phoenix I.D.: CA51715

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	97		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	56		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	39		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	52		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	49		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	70		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	13:32
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51716

Project ID: ROCKVILLE MGP
Client ID: MW-12S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	EK	SW6010C
Barium	0.037	0.002	mg/L	1	05/25/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18		
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12S

Phoenix I.D.: CA51716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/24/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/24/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12S

Phoenix I.D.: CA51716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/24/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/24/18	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/24/18	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	05/24/18	MH	70 - 130 %
% Toluene-d8	94		%	1	05/24/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/25/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/25/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12S

Phoenix I.D.: CA51716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/25/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/25/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/25/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	55		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	48		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	86		%	1	05/25/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12S

Phoenix I.D.: CA51716

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	103		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	49		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	61		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	61		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	73		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	15:05
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51717

Project ID: ROCKVILLE MGP
Client ID: MW-12D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	MA	SW6010C
Barium	0.176	0.002	mg/L	1	05/25/18	MA	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	MA	SW6010C
Chromium	0.004	0.001	mg/L	1	05/25/18	MA	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	05/25/18	MA	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	MA	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	MA	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	MA	SW6010C
Zinc	0.003	0.002	mg/L	1	05/25/18	MA	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/24/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/24/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	05/24/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12D

Phoenix I.D.: CA51717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/24/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/24/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12D

Phoenix I.D.: CA51717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/24/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	05/24/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/24/18	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	05/24/18	MH	70 - 130 %
% Toluene-d8	98		%	1	05/24/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/26/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12D

Phoenix I.D.: CA51717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/26/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	05/26/18	DD	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	05/26/18	DD	30 - 130 %
% 2-Fluorophenol	35		%	1	05/26/18	DD	15 - 110 %
% Nitrobenzene-d5	47		%	1	05/26/18	DD	30 - 130 %
% Phenol-d5	45		%	1	05/26/18	DD	15 - 110 %
% Terphenyl-d14	80		%	1	05/26/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-12D

Phoenix I.D.: CA51717

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	0.05	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	41		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	59		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	55		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	70		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	13:05
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51718

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	05/25/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	EK	SW6010C
Barium	0.020	0.002	mg/L	1	05/25/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Zinc	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/25/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	05/25/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: CA51718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/24/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/24/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroform	2.9	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: CA51718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/24/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	05/24/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/24/18	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	05/24/18	MH	70 - 130 %
% Toluene-d8	98		%	1	05/24/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	05/26/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: CA51718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
Acetophenone	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Aniline	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Benzidine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Benzoic acid	ND	47	ug/L	1	05/26/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Carbazole	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Isophorone	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	05/26/18	DD	SW8270D
Phenol	ND	0.94	ug/L	1	05/26/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	05/26/18	DD	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	05/26/18	DD	30 - 130 %
% 2-Fluorophenol	35		%	1	05/26/18	DD	15 - 110 %
% Nitrobenzene-d5	43		%	1	05/26/18	DD	30 - 130 %
% Phenol-d5	40		%	1	05/26/18	DD	15 - 110 %
% Terphenyl-d14	81		%	1	05/26/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-16S

Phoenix I.D.: CA51718

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	51		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	40		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	53		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	50		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	71		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 31, 2018

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:		05/22/18	9:26
Location Code:	TIGHE-DAS	Received by:	TC	05/22/18	17:31
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCA51710
Phoenix ID: CA51719

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	05/25/18	EK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	05/25/18	EK	SW6010C
Barium	0.086	0.002	mg/L	1	05/25/18	EK	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Copper	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	05/23/18	RS	SW7470A
Nickel	0.001	0.001	mg/L	1	05/25/18	EK	SW6010C
Lead	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Antimony	< 0.005	0.005	mg/L	1	05/25/18	EK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	05/25/18	EK	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	05/24/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	05/25/18	EK	SW6010C
Zinc	0.031	0.002	mg/L	1	05/25/18	EK	SW6010C
Total Cyanide	0.012	0.010	mg/L	1	05/25/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				05/23/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				05/23/18	WI/W	SW7470A
Semi-Volatile Extraction	Completed				05/23/18	P/R	SW3520C
Total Metals Digestion	Completed				05/24/18	AG	
Total Metals Digestion MS	Completed				05/23/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/25/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/25/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	05/25/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CA51719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/24/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Acetone	ND	25	ug/L	1	05/24/18	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	05/24/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/24/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CA51719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrachloroethene	2.0	1.0	ug/L	1	05/24/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/24/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/24/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/24/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/24/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/24/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/24/18	MH	70 - 130 %
% Dibromofluoromethane	103		%	1	05/24/18	MH	70 - 130 %
% Toluene-d8	98		%	1	05/24/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	05/26/18	DD	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	05/26/18	DD	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	05/26/18	DD	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CA51719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
4-Nitrophenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
Acetophenone	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Aniline	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Benzidine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Benzoic acid	ND	48	ug/L	1	05/26/18	DD	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Carbazole	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Isophorone	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	05/26/18	DD	SW8270D
Phenol	ND	0.95	ug/L	1	05/26/18	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	89		%	1	05/26/18	DD	15 - 110 %
% 2-Fluorobiphenyl	73		%	1	05/26/18	DD	30 - 130 %
% 2-Fluorophenol	38		%	1	05/26/18	DD	15 - 110 %
% Nitrobenzene-d5	54		%	1	05/26/18	DD	30 - 130 %
% Phenol-d5	37		%	1	05/26/18	DD	15 - 110 %
% Terphenyl-d14	74		%	1	05/26/18	DD	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
2-Methylnaphthalene	ND	0.95	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Acenaphthylene	0.10	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Anthracene	0.14	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	05/25/18	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/25/18	DD	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CA51719

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pentachlorophenol	ND	0.76	ug/L	1	05/25/18	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/25/18	DD	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	05/25/18	DD	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	05/25/18	DD	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	05/25/18	DD	30 - 130 %
% 2-Fluorophenol	46		%	1	05/25/18	DD	15 - 110 %
% Nitrobenzene-d5	60		%	1	05/25/18	DD	30 - 130 %
% Phenol-d5	44		%	1	05/25/18	DD	15 - 110 %
% Terphenyl-d14	71		%	1	05/25/18	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
May 31, 2018
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 31, 2018

QA/QC Data

SDG I.D.: GCA51710

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 431661 (mg/L), QC Sample No: CA50752 (CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	98.9			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 431970 (mg/L), QC Sample No: CA51657 (CA51710, CA51711, CA51712, CA51713, CA51714)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	91.8			103			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	89.0			99.3			75 - 125	20
Barium	BRL	0.002	0.172	0.174	1.20	100			99.2			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	96.2			99.8			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	91.4			99.0			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	87.5			95.2			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	95.9			96.7			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	89.0			97.0			75 - 125	20
Nickel	BRL	0.001	0.001	0.002	NC	90.4			96.9			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	89.1			97.6			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	92.4			99.1			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	94.5			97.9			75 - 125	20
Zinc	BRL	0.002	0.004	0.003	NC	89.7			99.0			75 - 125	20
QA/QC Batch 431756 (mg/L), QC Sample No: CA51710 5X (CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0015	<0.0005	<0.0015	NC	100			85.6			75 - 125	20
QA/QC Batch 431971 (mg/L), QC Sample No: CA51842 (CA51715, CA51716, CA51717, CA51718, CA51719)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	100			102			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.3			101			75 - 125	20
Barium	BRL	0.002	0.018	0.018	0	98.8			99.2			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	95.6			99.2			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	99.0			99.2			75 - 125	20
Chromium	BRL	0.001	<0.010	<0.010	NC	101			105			75 - 125	20
Copper	BRL	0.005	0.005	<0.005	NC	94.3			95.7			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	97.7			98.0			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	99.3			98.6			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	98.1			97.5			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	91.8			95.5			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	94.0			97.5			75 - 125	20
Zinc	BRL	0.002	0.005	0.005	NC	97.2			98.5			75 - 125	20

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

May 31, 2018

QA/QC Data

SDG I.D.: GCA51710

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 431836 (mg/L), QC Sample No: CA51710 (CA51710, CA51711, CA51712)													
Total Cyanide	BRL	0.010	0.011	0.012	NC	90.5			101			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 431988 (mg/L), QC Sample No: CA51714 (CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	92.1			102			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

May 31, 2018

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 431609 (ug/L), QC Sample No: CA50006 (CA51710)										
Semivolatiles (SIM) - Ground Water										
1,2,4,5-Tetrachlorobenzene	ND	0.50	61	67	9.4				30 - 130	20
2-Methylnaphthalene	ND	0.02	64	71	10.4				30 - 130	20
Acenaphthene	ND	0.02	74	78	5.3				30 - 130	20
Acenaphthylene	ND	0.02	69	70	1.4				30 - 130	20
Anthracene	ND	0.02	75	79	5.2				30 - 130	20
Benz(a)anthracene	ND	0.02	83	85	2.4				30 - 130	20
Benzo(a)pyrene	ND	0.02	66	68	3.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	80	77	3.8				30 - 130	20
Benzo(ghi)perylene	ND	0.02	75	76	1.3				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	86	90	4.5				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.2	103	100	3.0				30 - 130	20
Chrysene	ND	0.02	81	81	0.0				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	79	88	10.8				30 - 130	20
Dibenzofuran	ND	0.05	75	78	3.9				30 - 130	20
Fluoranthene	ND	0.02	80	84	4.9				30 - 130	20
Fluorene	ND	0.02	78	79	1.3				30 - 130	20
Hexachlorobenzene	ND	0.02	81	83	2.4				30 - 130	20
Hexachlorobutadiene	ND	0.05	54	64	16.9				30 - 130	20
Hexachlorocyclopentadiene	ND	0.05	32	36	11.8				30 - 130	20
Hexachloroethane	ND	0.05	54	62	13.8				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	73	79	7.9				30 - 130	20
Naphthalene	ND	0.02	58	65	11.4				30 - 130	20
Nitrobenzene	ND	0.05	63	72	13.3				30 - 130	20
Pentachloronitrobenzene	ND	0.10	94	103	9.1				30 - 130	20
Pentachlorophenol	ND	0.20	116	136	15.9				30 - 130	20
Phenanthrene	ND	0.02	78	79	1.3				30 - 130	20
Pyrene	ND	0.02	83	89	7.0				30 - 130	20
Pyridine	ND	0.50	45	45	0.0				30 - 130	20
% 2,4,6-Tribromophenol	95	%	101	112	10.3				15 - 110	20
% 2-Fluorobiphenyl	66	%	70	74	5.6				30 - 130	20
% 2-Fluorophenol	50	%	41	46	11.5				15 - 110	20
% Nitrobenzene-d5	73	%	65	71	8.8				30 - 130	20
% Phenol-d5	60	%	46	52	12.2				15 - 110	20
% Terphenyl-d14	87	%	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%)										
QA/QC Batch 431609 (ug/L), QC Sample No: CA50006 (CA51710)										
Semivolatiles - Ground Water										
1,2,4-Trichlorobenzene	ND	3.5	58	66	12.9				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	56	65	14.9				30 - 130	20

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Diphenylhydrazine	ND	1.6	80	96	18.2				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	55	64	15.1				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	57	64	11.6				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	85	98	14.2				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	80	92	14.0				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	62	76	20.3				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	73	86	16.4				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	94	100	6.2				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	95	98	3.1				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	92	95	3.2				30 - 130	20	
2-Chloronaphthalene	ND	3.5	74	81	9.0				30 - 130	20	
2-Chlorophenol	ND	1.0	52	60	14.3				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	59	63	6.6				30 - 130	20	
2-Nitroaniline	ND	3.5	100	100	0.0				30 - 130	20	
2-Nitrophenol	ND	1.0	73	92	23.0				30 - 130	20	r
3&4-Methylphenol (m&p-cresol)	ND	1.0	61	72	16.5				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	20	97	131.6				30 - 130	20	l,r
3-Nitroaniline	ND	5.0	69	93	29.6				30 - 130	20	r
4,6-Dinitro-2-methylphenol	ND	1.0	95	101	6.1				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	85	87	2.3				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	90	82	9.3				30 - 130	20	
4-Chloroaniline	ND	3.5	48	80	50.0				30 - 130	20	r
4-Chlorophenyl phenyl ether	ND	1.0	88	89	1.1				30 - 130	20	
4-Nitroaniline	ND	5.0	82	93	12.6				30 - 130	20	
4-Nitrophenol	ND	1.0	78	97	21.7				15 - 130	20	r
Acetophenone	ND	3.5	65	76	15.6				30 - 130	20	
Aniline	ND	3.5	61	61	0.0				30 - 130	20	
Benzidine	ND	4.5	121	121	0.0				30 - 130	20	
Benzoic acid	ND	10	50	56	11.3				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	87	94	7.7				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	58	71	20.2				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	48	56	15.4				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	41	51	21.7				30 - 130	20	r
Carbazole	ND	5.0	93	97	4.2				30 - 130	20	
Diethyl phthalate	ND	1.5	95	107	11.9				30 - 130	20	
Dimethylphthalate	ND	1.5	90	92	2.2				30 - 130	20	
Di-n-butylphthalate	ND	1.5	88	104	16.7				30 - 130	20	
Di-n-octylphthalate	ND	1.5	93	105	12.1				30 - 130	20	
Isophorone	ND	3.5	61	74	19.3				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	65	65	0.0				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	68	79	15.0				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	81	83	2.4				30 - 130	20	
Phenol	ND	1.0	39	45	14.3				15 - 130	20	
% 2,4,6-Tribromophenol	73	%	76	104	31.1				15 - 110	20	r
% 2-Fluorobiphenyl	78	%	77	96	22.0				30 - 130	20	r
% 2-Fluorophenol	45	%	37	48	25.9				15 - 110	20	r
% Nitrobenzene-d5	64	%	67	78	15.2				30 - 130	20	
% Phenol-d5	48	%	41	48	15.7				15 - 110	20	
% Terphenyl-d14	99	%	92	96	4.3				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%)

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 431758 (mg/L), QC Sample No: CA50750 (CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)										
TPH by GC (Extractable Products) - Ground Water										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	82	86	4.8				60 - 120	30
% n-Pentacosane	71	%	79	82	3.7				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 431933 (ug/L), QC Sample No: CA51378 (CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	85	89	4.6				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	82	84	2.4				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	86	93	7.8				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	77	86	11.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	82	85	3.6				70 - 130	30
1,1-Dichloroethene	ND	1.0	86	86	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	83	81	2.4				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	86	99	14.1				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	83	83	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	85	92	7.9				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	87	85	2.3				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	90	96	6.5				70 - 130	30
1,2-Dibromoethane	ND	1.0	82	90	9.3				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	84	86	2.4				70 - 130	30
1,2-Dichloroethane	ND	1.0	78	85	8.6				70 - 130	30
1,2-Dichloropropane	ND	1.0	80	84	4.9				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	85	83	2.4				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	85	85	0.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	80	87	8.4				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	84	84	0.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	78	78	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	87	83	4.7				70 - 130	30
2-Hexanone	ND	5.0	75	88	16.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	96	94	2.1				70 - 130	30
4-Chlorotoluene	ND	1.0	86	84	2.4				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	75	90	18.2				70 - 130	30
Acetone	ND	5.0	77	89	14.5				70 - 130	30
Acrylonitrile	ND	5.0	85	102	18.2				70 - 130	30
Benzene	ND	0.70	82	84	2.4				70 - 130	30
Bromobenzene	ND	1.0	88	88	0.0				70 - 130	30
Bromochloromethane	ND	1.0	82	90	9.3				70 - 130	30
Bromodichloromethane	ND	0.50	83	88	5.8				70 - 130	30
Bromoform	ND	1.0	84	93	10.2				70 - 130	30
Bromomethane	ND	1.0	114	111	2.7				70 - 130	30
Carbon Disulfide	ND	1.0	99	98	1.0				70 - 130	30
Carbon tetrachloride	ND	1.0	84	82	2.4				70 - 130	30
Chlorobenzene	ND	1.0	82	83	1.2				70 - 130	30
Chloroethane	ND	1.0	97	95	2.1				70 - 130	30
Chloroform	ND	1.0	81	85	4.8				70 - 130	30
Chloromethane	ND	1.0	94	95	1.1				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	84	87	3.5				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	80	86	7.2				70 - 130	30

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibromochloromethane	ND	0.50	88	96	8.7				70 - 130	30
Dibromomethane	ND	1.0	71	80	11.9				70 - 130	30
Dichlorodifluoromethane	ND	1.0	96	95	1.0				70 - 130	30
Ethylbenzene	ND	1.0	84	83	1.2				70 - 130	30
Hexachlorobutadiene	ND	0.40	89	87	2.3				70 - 130	30
Isopropylbenzene	ND	1.0	86	83	3.6				70 - 130	30
m&p-Xylene	ND	1.0	82	83	1.2				70 - 130	30
Methyl ethyl ketone	ND	5.0	78	91	15.4				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	97	113	15.2				70 - 130	30
Methylene chloride	ND	1.0	83	88	5.8				70 - 130	30
Naphthalene	ND	1.0	89	102	13.6				70 - 130	30
n-Butylbenzene	ND	1.0	83	81	2.4				70 - 130	30
n-Propylbenzene	ND	1.0	83	81	2.4				70 - 130	30
o-Xylene	ND	1.0	84	85	1.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	83	82	1.2				70 - 130	30
sec-Butylbenzene	ND	1.0	83	83	0.0				70 - 130	30
Styrene	ND	1.0	85	86	1.2				70 - 130	30
tert-Butylbenzene	ND	1.0	82	82	0.0				70 - 130	30
Tetrachloroethene	ND	1.0	81	82	1.2				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	78	94	18.6				70 - 130	30
Toluene	ND	1.0	83	85	2.4				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	87	87	0.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	77	86	11.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	96	111	14.5				70 - 130	30
Trichloroethene	ND	1.0	85	85	0.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	89	89	0.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	93	93	0.0				70 - 130	30
Vinyl chloride	ND	1.0	92	93	1.1				70 - 130	30
% 1,2-dichlorobenzene-d4	93	%	100	100	0.0				70 - 130	30
% Bromofluorobenzene	94	%	97	98	1.0				70 - 130	30
% Dibromofluoromethane	96	%	93	99	6.3				70 - 130	30
% Toluene-d8	92	%	99	100	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 431761 (ug/L), QC Sample No: CA51711 (CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)

Semivolatiles (SIM) - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	0.50	62	56	10.2				30 - 130	20
2-Methylnaphthalene	ND	0.02	63	56	11.8				30 - 130	20
Acenaphthene	ND	0.02	76	72	5.4				30 - 130	20
Acenaphthylene	ND	0.02	72	69	4.3				30 - 130	20
Anthracene	ND	0.02	88	81	8.3				30 - 130	20
Benz(a)anthracene	ND	0.02	88	81	8.3				30 - 130	20
Benzo(a)pyrene	ND	0.02	79	73	7.9				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	85	81	4.8				30 - 130	20
Benzo(ghi)perylene	ND	0.02	80	72	10.5				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	93	85	9.0				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	0.10	90	90	0.0				30 - 130	20
Chrysene	ND	0.02	86	79	8.5				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	93	79	16.3				30 - 130	20
Dibenzofuran	ND	0.05	75	70	6.9				30 - 130	20

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Fluoranthene	ND	0.02	92	83	10.3				30 - 130	20	
Fluorene	ND	0.02	81	76	6.4				30 - 130	20	
Hexachlorobenzene	ND	0.02	84	80	4.9				30 - 130	20	
Hexachlorobutadiene	ND	0.05	55	49	11.5				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	37	30	20.9				30 - 130	20	r
Hexachloroethane	ND	0.05	47	43	8.9				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	85	75	12.5				30 - 130	20	
Naphthalene	ND	0.02	55	50	9.5				30 - 130	20	
Nitrobenzene	ND	0.05	59	53	10.7				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	96	89	7.6				30 - 130	20	
Pentachlorophenol	ND	0.20	121	102	17.0				30 - 130	20	
Phenanthrene	ND	0.02	79	73	7.9				30 - 130	20	
Pyrene	ND	0.02	95	86	9.9				30 - 130	20	
Pyridine	ND	0.50	30	30	0.0				30 - 130	20	
% 2,4,6-Tribromophenol	84	%	91	85	6.8				15 - 110	20	
% 2-Fluorobiphenyl	64	%	68	65	4.5				30 - 130	20	
% 2-Fluorophenol	57	%	39	33	16.7				15 - 110	20	
% Nitrobenzene-d5	68	%	57	54	5.4				30 - 130	20	
% Phenol-d5	69	%	47	39	18.6				15 - 110	20	
% Terphenyl-d14	90	%	89	80	10.7				30 - 130	20	

Comment:

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 431761 (ug/L), QC Sample No: CA51711 (CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719)

Semivolatiles - Ground Water

1,2,4-Trichlorobenzene	ND	3.5	53	54	1.9				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	51	44	14.7				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	82	80	2.5				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	51	43	17.0				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	51	44	14.7				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	79	74	6.5				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	78	70	10.8				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	58	58	0.0				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	61	67	9.4				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	93	81	13.8				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	93	88	5.5				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	89	84	5.8				30 - 130	20	
2-Chloronaphthalene	ND	3.5	70	66	5.9				30 - 130	20	
2-Chlorophenol	ND	1.0	48	43	11.0				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	52	44	16.7				30 - 130	20	
2-Nitroaniline	ND	3.5	117	131	11.3				30 - 130	20	l
2-Nitrophenol	ND	1.0	63	69	9.1				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	57	52	9.2				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	83	74	11.5				30 - 130	20	
3-Nitroaniline	ND	5.0	91	82	10.4				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	95	86	9.9				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	82	76	7.6				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	77	68	12.4				30 - 130	20	
4-Chloroaniline	ND	3.5	47	34	32.1				30 - 130	20	r
4-Chlorophenyl phenyl ether	ND	1.0	85	81	4.8				30 - 130	20	
4-Nitroaniline	ND	5.0	81	77	5.1				30 - 130	20	

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Nitrophenol	ND	1.0	91	84	8.0				15 - 130	20	
Acetophenone	ND	3.5	57	55	3.6				30 - 130	20	
Aniline	ND	3.5	<10	<10	NC				30 - 130	20	I
Benzidine	ND	4.5	<10	<10	NC				30 - 130	20	I
Benzoic acid	ND	10	59	48	20.6				30 - 130	20	r
Benzyl butyl phthalate	ND	1.5	88	78	12.0				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	56	56	0.0				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	43	41	4.8				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	39	32	19.7				30 - 130	20	
Carbazole	ND	5.0	89	83	7.0				30 - 130	20	
Diethyl phthalate	ND	3.5	95	93	2.1				30 - 130	20	
Dimethylphthalate	ND	1.5	87	81	7.1				30 - 130	20	
Di-n-butylphthalate	ND	1.5	88	87	1.1				30 - 130	20	
Di-n-octylphthalate	ND	1.5	94	84	11.2				30 - 130	20	
Isophorone	ND	3.5	54	62	13.8				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	46	41	11.5				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	63	61	3.2				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	81	76	6.4				30 - 130	20	
Phenol	ND	1.0	38	32	17.1				15 - 130	20	
% 2,4,6-Tribromophenol	94	%	81	86	6.0				15 - 110	20	
% 2-Fluorobiphenyl	74	%	72	67	7.2				30 - 130	20	
% 2-Fluorophenol	50	%	34	28	19.4				15 - 110	20	
% Nitrobenzene-d5	60	%	60	55	8.7				30 - 130	20	
% Phenol-d5	57	%	39	34	13.7				15 - 110	20	
% Terphenyl-d14	86	%	90	99	9.5				30 - 130	20	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 431889 (ug/L), QC Sample No: CA52473 (CA51717, CA51718, CA51719)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	88	93	5.5				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	86	92	6.7				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	96	100	4.1				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	87	95	8.8				70 - 130	30	
1,1-Dichloroethane	ND	1.0	87	92	5.6				70 - 130	30	
1,1-Dichloroethene	ND	1.0	89	95	6.5				70 - 130	30	
1,1-Dichloropropene	ND	1.0	89	95	6.5				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	95	104	9.0				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	92	95	3.2				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	92	98	6.3				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	86	89	3.4				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	101	104	2.9				70 - 130	30	
1,2-Dibromoethane	ND	1.0	89	95	6.5				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	86	91	5.6				70 - 130	30	
1,2-Dichloroethane	ND	1.0	87	92	5.6				70 - 130	30	
1,2-Dichloropropane	ND	1.0	87	93	6.7				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	86	88	2.3				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	86	90	4.5				70 - 130	30	
1,3-Dichloropropane	ND	1.0	90	94	4.3				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	84	89	5.8				70 - 130	30	
2,2-Dichloropropane	ND	1.0	89	94	5.5				70 - 130	30	
2-Chlorotoluene	ND	1.0	85	88	3.5				70 - 130	30	

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
2-Hexanone	ND	5.0	92	99	7.3				70 - 130	30
2-Isopropyltoluene	ND	1.0	98	102	4.0				70 - 130	30
4-Chlorotoluene	ND	1.0	84	88	4.7				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	92	99	7.3				70 - 130	30
Acetone	ND	5.0	87	90	3.4				70 - 130	30
Acrylonitrile	ND	5.0	108	118	8.8				70 - 130	30
Benzene	ND	0.70	87	93	6.7				70 - 130	30
Bromobenzene	ND	1.0	87	91	4.5				70 - 130	30
Bromochloromethane	ND	1.0	89	94	5.5				70 - 130	30
Bromodichloromethane	ND	0.50	87	93	6.7				70 - 130	30
Bromoform	ND	1.0	90	98	8.5				70 - 130	30
Bromomethane	ND	1.0	101	110	8.5				70 - 130	30
Carbon Disulfide	ND	1.0	105	110	4.7				70 - 130	30
Carbon tetrachloride	ND	1.0	90	93	3.3				70 - 130	30
Chlorobenzene	ND	1.0	84	89	5.8				70 - 130	30
Chloroethane	ND	1.0	92	96	4.3				70 - 130	30
Chloroform	ND	1.0	85	89	4.6				70 - 130	30
Chloromethane	ND	1.0	90	97	7.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	89	94	5.5				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	88	94	6.6				70 - 130	30
Dibromochloromethane	ND	0.50	94	100	6.2				70 - 130	30
Dibromomethane	ND	1.0	87	94	7.7				70 - 130	30
Dichlorodifluoromethane	ND	1.0	106	114	7.3				70 - 130	30
Ethylbenzene	ND	1.0	86	90	4.5				70 - 130	30
Hexachlorobutadiene	ND	0.40	92	95	3.2				70 - 130	30
Isopropylbenzene	ND	1.0	87	89	2.3				70 - 130	30
m&p-Xylene	ND	1.0	84	89	5.8				70 - 130	30
Methyl ethyl ketone	ND	5.0	95	103	8.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	103	110	6.6				70 - 130	30
Methylene chloride	ND	1.0	83	88	5.8				70 - 130	30
Naphthalene	ND	1.0	101	108	6.7				70 - 130	30
n-Butylbenzene	ND	1.0	90	93	3.3				70 - 130	30
n-Propylbenzene	ND	1.0	87	90	3.4				70 - 130	30
o-Xylene	ND	1.0	84	90	6.9				70 - 130	30
p-Isopropyltoluene	ND	1.0	87	92	5.6				70 - 130	30
sec-Butylbenzene	ND	1.0	91	95	4.3				70 - 130	30
Styrene	ND	1.0	85	91	6.8				70 - 130	30
tert-Butylbenzene	ND	1.0	86	89	3.4				70 - 130	30
Tetrachloroethene	ND	1.0	87	93	6.7				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	100	112	11.3				70 - 130	30
Toluene	ND	1.0	86	92	6.7				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	90	94	4.3				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	85	92	7.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	111	116	4.4				70 - 130	30
Trichloroethene	ND	1.0	86	91	5.6				70 - 130	30
Trichlorofluoromethane	ND	1.0	93	100	7.3				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	106	112	5.5				70 - 130	30
Vinyl chloride	ND	1.0	96	101	5.1				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	99	2.0				70 - 130	30
% Bromofluorobenzene	93	%	98	99	1.0				70 - 130	30
% Dibromofluoromethane	106	%	104	100	3.9				70 - 130	30
% Toluene-d8	97	%	99	100	1.0				70 - 130	30

QA/QC Data

SDG I.D.: GCA51710

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

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
May 31, 2018

Thursday, May 31, 2018

Criteria: CT: RV, SWP

State: CT

Sample Criteria Exceedances Report

GCA51710 - 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): CA51710-CA51719 ***Sampling Date(s):*** 5/22/2018

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, SVOASIM Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Phyllis Shiller **Position:** Laboratory Director

Printed Name: Phyllis Shiller **Date:** Thursday, May 31, 2018

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

May 31, 2018

SDG I.D.: GCA51710

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 05/24/18-1 Dustin Harrison, Greg Danielewski, Chemist 05/24/18

CA51710, CA51711, CA51712

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 05/25/18-1 Brian Sheriden, Greg Danielewski, Chemist 05/25/18

CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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 431836 (CA51710)

CA51710, CA51711, CA51712

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

Batch 431988 (CA51714)

CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-XL2 05/24/18-1 Jeff Bucko, Chemist 05/24/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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ETPH Narration

The initial calibration (ETPH509I) 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 431758 (CA50750)

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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 05/23/18 07:57 Rick Schweitzer, Chemist 05/23/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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 431661 (CA50752)

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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 05/24/18 06:47 Emily Kolominskaya, Mike Arsenault, Chemist 05/24/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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.

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Certification Report

May 31, 2018

SDG I.D.: GCA51710

ICP Metals Narration

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 05/25/18 09:00 Mike Arsenault, Chemist 05/25/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51717

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 431970 (CA51657)

CA51710, CA51711, CA51712, CA51713, CA51714

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 431971 (CA51842)

CA51715, CA51716, CA51717, CA51718, CA51719

All LCS recoveries were within 75 - 125 with the following exceptions: None.

ICPMS Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ICPMS 05/24/18 17:10 Cindy Pearce, Chemist 05/24/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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 samples did not meet internal standard criteria: None.

QC (Site Specific):

Batch 431756 (CA51710)

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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.
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RCP Certification Report

May 31, 2018

SDG I.D.: GCA51710

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 431609 (Samples: CA51710): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (3,3''-Dichlorobenzidine)

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-Nitrophenol, 3,3''-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitrophenol, Bis(2-chloroisopropyl)ether)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% 2,4,6-Tribromophenol, % 2-Fluorobiphenyl, % 2-Fluorophenol)

QC Batch 431761 (Samples: CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (Aniline, Benzidine)

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-Nitroaniline)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4-Chloroaniline, Benzoic acid)

Instrument:

CHEM05 05/24/18-1 Damien Drobinski, Chemist 05/24/18

CA51710

Initial Calibration Verification (CHEM05/BN_0514):
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 (CHEM05/0524_02A-BN_0514):
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 05/25/18-1 Damien Drobinski, Chemist 05/25/18

CA51711, CA51712, CA51713, CA51714, CA51715, CA51716

Initial Calibration Verification (CHEM29/BN_0524):
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 (CHEM29/0525_02-BN_0524):

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

May 31, 2018

SDG I.D.: GCA51710

SVOA 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.

CHEM29 05/26/18-1 Damien Drobinski, Chemist 05/26/18

CA51717, CA51718, CA51719

Initial Calibration Verification (CHEM29/SPLIT_0524):
94% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 39% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.066 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0526_02-SPLIT_0524):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
95% of target compounds met criteria.
The following compounds did not meet % deviation criteria: 2-Nitroaniline 35%L (30%), Benzoic acid 44%H (30%)
The following compounds did not meet maximum % deviations: Benzoic acid 44%H (40%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.070 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 431609 (CA50006)

CA51710

All LCS recoveries were within 30 - 130 with the following exceptions: 3,3'-Dichlorobenzidine(20%)
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: % 2,4,6-Tribromophenol(31.1%), % 2-Fluorobiphenyl(22.0%), % 2-Fluorophenol(25.9%), 2-Nitrophenol(23.0%), 3,3'-Dichlorobenzidine(131.6%), 3-Nitroaniline(29.6%), 4-Chloroaniline(50.0%), 4-Nitrophenol(21.7%), Bis(2-chloroisopropyl)ether(21.7%)
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%)

Batch 431761 (CA51711)

CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

All LCS recoveries were within 30 - 130 with the following exceptions: Aniline(<10%), Benzidine(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(131%), Aniline(<10%), Benzidine(<10%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: 4-Chloroaniline(32.1%), Benzoic acid(20.6%)
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%)

SVOASIM Narration

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

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RCP Certification Report

May 31, 2018

SDG I.D.: GCA51710

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 431609 (Samples: CA51710): -----

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)

QC Batch 431761 (Samples: CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719): -----

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. (Hexachlorocyclopentadiene)

Instrument:

CHEM04 05/25/18-1 Damien Drobinski, Chemist 05/25/18

CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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_0521):
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 (CHEM04/0525_02-SIM_0521):
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 0.282 (0.3)
The following compounds did not meet minimum response factors: None.

CHEM25 05/24/18-1 Damien Drobinski, Chemist 05/24/18

CA51710

Initial Calibration Verification (CHEM25/SIM_0410):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: Hexachloroethane 0.265 (0.3)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0524_02-SIM_0410):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

May 31, 2018

SDG I.D.: GCA51710

SVOASIM Narration

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 431609 (CA50006)

CA51710

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(112%), Pentachlorophenol(136%)
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%)

Batch 431761 (CA51711)

CA51711, CA51712, CA51713, CA51714, CA51715, CA51716, CA51717, CA51718, CA51719

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: Hexachlorocyclopentadiene(20.9%)
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM02 05/23/18-2 Michael Hahn, Chemist 05/23/18

CA51717, CA51718, CA51719

Initial Calibration Verification (CHEM02/VT-P0522):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 22% (20%), Bromomethane 24% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), 2-Hexanone 0.093 (0.1), Acetone 0.052 (0.1), Bromoform 0.094 (0.1), Methyl ethyl ketone 0.076 (0.1), Tetrahydrofuran (THF) 0.046 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0523P29-VT-P0522):
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 0.040 (0.05)
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

May 31, 2018

SDG I.D.: GCA51710

VOA Narration

CHEM17 05/23/18-2 Michael Hahn, Chemist 05/23/18

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716

Initial Calibration Verification (CHEM17/VT-S0523):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Bromomethane 25% (20%), trans-1,4-dichloro-2-butene 27% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), 2-Hexanone 0.093 (0.1), Acetone 0.053 (0.1), Methyl ethyl ketone 0.078 (0.1), Tetrahydrofuran (THF) 0.048 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0523_16-VT-S0523):
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 0.043 (0.05), Tetrahydrofuran (THF) 0.047 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 431889 (CA52473)

CA51717, CA51718, CA51719

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%.

Batch 431933 (CA51378)

CA51710, CA51711, CA51712, CA51713, CA51714, CA51715, CA51716

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 1.4C with cooling initiated.
(Note acceptance criteria for relevant matrices 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 4.4 °C Pg 1 of

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: LEwiley@tighebond.com

Customer: Tighe + Bond
Address: 213 Court ST
Middletown, CT

Project: Rockville MGP
Report to: Lynn Wiley
Invoice to: Tighe + Bond Westfield Office

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 5/22/18

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC	SVOC	Metals (Replace)	ETPH	Total Cyanide	GL Amber 8 oz. w/H3PO4	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 w/thio	Bacteria Bottle as is
51710	MW-4S	GW	5/22/18	9:25	/	/	/	/	/					3	3			1	1		
51711	MW-4D			11:45	/	/	/	/	/					3	3			1	1		
51712	MW-6S			14:20	/	/	/	/	/					3	3			1	1		
51713	MW-6D			15:45	/	/	/	/	/					3	3			1	1		
51714	MW-11S			9:32	/	/	/	/	/					3	3			1	1		
51715	MW-11D			10:57	/	/	/	/	/					3	3			1	1		
51716	MW-12S			1:32	/	/	/	/	/					3	3			1	1		
51717	MW-12D			3:05	/	/	/	/	/					3	3			1	1		
51718	*MW-16S/6S			13:05	/	/	/	/	/					3	3			1	1		
51719	MW-DUP	↓	↓	9:26	/	/	/	/	/					3	3			1	1		
	Trip Blank (DOC)	W	–	–	/									3							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	TTOWN	5/22/18	11:31

Comments, Special Requirements or Regulations:
DAS rates
* MW-16S

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 RCS 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 Eversource

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 22
Page 1129 of 1282

PHOENIX
Environmental Laboratories, Inc.

Monday, November 05, 2018

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: CB82836 - CB82852

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

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SDG Comments

November 05, 2018

SDG I.D.: GCB82836

Volatile 8260 analysis:
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.
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Analysis Report

November 05, 2018

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:		10/24/18	9:26
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82836

Project ID: ROCKVILLE MGP
Client ID: MW-4SR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.118	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	EK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	0.019	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	0.013	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4SR

Phoenix I.D.: CB82836

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4SR

Phoenix I.D.: CB82836

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	1.0	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.6	ug/L	1	10/29/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.6	ug/L	1	10/29/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.6	ug/L	1	10/29/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
2-Chloronaphthalene	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
2-Nitroaniline	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	10/29/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
3-Nitroaniline	ND	5.1	ug/L	1	10/29/18	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
4-Nitroaniline	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
Acetophenone	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Aniline	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
Benzoic acid	ND	51	ug/L	1	10/29/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
Diethyl phthalate	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Dimethylphthalate	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Di-n-butylphthalate	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Di-n-octylphthalate	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Isophorone	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/29/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.1	ug/L	1	10/29/18	WB	SW8270D
Phenol	ND	1.0	ug/L	1	10/29/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	10/29/18	WB	15 - 110 %
% 2-Fluorobiphenyl	79		%	1	10/29/18	WB	30 - 130 %
% 2-Fluorophenol	40		%	1	10/29/18	WB	15 - 110 %
% Nitrobenzene-d5	63		%	1	10/29/18	WB	30 - 130 %
% Phenol-d5	47		%	1	10/29/18	WB	15 - 110 %
% Terphenyl-d14	74		%	1	10/29/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.51	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.0	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	0.69	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	0.37	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	0.31	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.51	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	0.20	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	0.93	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-4SR

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.51	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.51	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.82	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	0.07	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	1.0	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.51	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	75		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	55		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	75		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	70		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	79		%	1	10/29/18	HM	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	10:44
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82837

Project ID: ROCKVILLE MGP
Client ID: MW-25S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.112	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	0.014	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.068	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-25S

Phoenix I.D.: CB82837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-25S

Phoenix I.D.: CB82837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	92		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	90		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	10/31/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	10/31/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	10/31/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	10/31/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	10/31/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-25S

Phoenix I.D.: CB82837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
4-Nitrophenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Aniline	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	10/31/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	10/31/18	WB	SW8270D
Phenol	ND	0.96	ug/L	1	10/31/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	89		%	1	10/31/18	WB	15 - 110 %
% 2-Fluorobiphenyl	65		%	1	10/31/18	WB	30 - 130 %
% 2-Fluorophenol	51		%	1	10/31/18	WB	15 - 110 %
% Nitrobenzene-d5	63		%	1	10/31/18	WB	30 - 130 %
% Phenol-d5	61		%	1	10/31/18	WB	15 - 110 %
% Terphenyl-d14	68		%	1	10/31/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.96	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	0.23	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	0.13	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	0.08	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	0.18	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-25S

Phoenix I.D.: CB82837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	75		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	68		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	80		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	81		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	75		%	1	10/29/18	HM	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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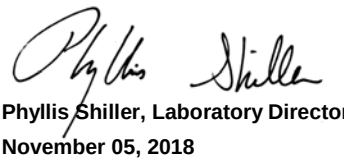

Phyllis Shiller, Laboratory Director
November 05, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 05, 2018

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:		10/24/18	11:34
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82838

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	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.160	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/30/18	P/D/D	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.090	0.077	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	56		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CB82838

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	3.4	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CB82838

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	91		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	90		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.6	ug/L	1	11/02/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.6	ug/L	1	11/02/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.6	ug/L	1	11/02/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
2-Chloronaphthalene	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
2-Chlorophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
2-Nitroaniline	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
2-Nitrophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	11	ug/L	1	11/02/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
3-Nitroaniline	ND	5.3	ug/L	1	11/02/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CB82838

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
4-Nitroaniline	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
4-Nitrophenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
Acetophenone	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Aniline	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
Benzoic acid	ND	53	ug/L	1	11/02/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
Diethyl phthalate	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Dimethylphthalate	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Di-n-butylphthalate	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Di-n-octylphthalate	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Isophorone	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	11/02/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.3	ug/L	1	11/02/18	WB	SW8270D
Phenol	ND	1.1	ug/L	1	11/02/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	11/02/18	WB	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	11/02/18	WB	30 - 130 %
% 2-Fluorophenol	33		%	1	11/02/18	WB	15 - 110 %
% Nitrobenzene-d5	61		%	1	11/02/18	WB	30 - 130 %
% Phenol-d5	38		%	1	11/02/18	WB	15 - 110 %
% Terphenyl-d14	77		%	1	11/02/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.53	ug/L	1	11/01/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.1	ug/L	1	11/01/18	HM	SW8270D (SIM)
Acenaphthene	0.05	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Acenaphthylene	0.07	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.21	ug/L	1	11/01/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.53	ug/L	1	11/01/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	11/01/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-10BR

Phoenix I.D.: CB82838

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.53	ug/L	1	11/01/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.53	ug/L	1	11/01/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Naphthalene	0.31	0.11	ug/L	1	11/01/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.11	ug/L	1	11/01/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.11	ug/L	1	11/01/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.84	ug/L	1	11/01/18	HM	SW8270D (SIM)
Phenanthrene	0.12	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/01/18	HM	SW8270D (SIM)
Pyridine	ND	0.53	ug/L	1	11/01/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	11/01/18	HM	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	11/01/18	HM	30 - 130 %
% 2-Fluorophenol	39		%	1	11/01/18	HM	15 - 110 %
% Nitrobenzene-d5	69		%	1	11/01/18	HM	30 - 130 %
% Phenol-d5	43		%	1	11/01/18	HM	15 - 110 %
% Terphenyl-d14	74		%	1	11/01/18	HM	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.

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.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	12:26
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82839

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.047	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	0.031	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.55	0.069	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	54		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Phoenix I.D.: CB82839

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	13	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	2.3	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	1.3	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Phoenix I.D.: CB82839

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	4.4	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	180	10	ug/L	10	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	9.7	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	14.1	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	88		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.9	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Phoenix I.D.: CB82839

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	50	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Naphthalene	110	49	ug/L	10	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	107		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	37		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	54		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	47		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	68		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	1.5	0.99	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	5.6	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	3.2	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	1.5	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	0.13	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	0.07	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	0.15	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	0.39	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	0.99	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Phoenix I.D.: CB82839

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	3.7	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.79	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	1.2	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	1.4	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	44		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	60		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	56		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	69		%	1	10/29/18	HM	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.

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.

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 05, 2018
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 05, 2018

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:		10/24/18	14:03
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82840

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	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.230	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.005	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.071	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CB82840

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CB82840

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.8	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.8	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.8	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	11	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.6	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CB82840

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	56	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.6	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	104		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	57		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	66		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	67		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	82		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.56	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.1	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.22	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.56	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-3BR

Phoenix I.D.: CB82840

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.56	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.56	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.90	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.06	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.56	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	99		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	64		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	78		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	79		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	81		%	1	10/29/18	HM	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	14:30
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82841

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	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.198	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	2.8	0.068	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CB82841

Volatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1,2-Tetrachloroethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	7.0	ug/L	10	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	9.6	ug/L	10	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	98	10	ug/L	10	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	29	10	ug/L	10	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	10	ug/L	10	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	10	ug/L	10	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	10	ug/L	10	10/31/18	MH	SW8260C
2-Hexanone	ND	35	ug/L	10	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	10	ug/L	10	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	10	ug/L	10	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	50	ug/L	10	10/31/18	MH	SW8260C
Acetone	ND	250	ug/L	10	10/31/18	MH	SW8260C
Acrylonitrile	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
Benzene	680	70	ug/L	100	10/31/18	MH	SW8260C
Bromobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
Bromochloromethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
Bromodichloromethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
Bromoform	ND	4.0	ug/L	10	10/31/18	MH	SW8260C
Bromomethane	ND	3.5	ug/L	10	10/31/18	MH	SW8260C
Carbon Disulfide	ND	40	ug/L	10	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
Chlorobenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
Chloroethane	ND	7.4	ug/L	10	10/31/18	MH	SW8260C
Chloroform	ND	6.0	ug/L	10	10/31/18	MH	SW8260C
Chloromethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	10	ug/L	10	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	4.0	ug/L	10	10/31/18	MH	SW8260C
Dibromochloromethane	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
Dibromomethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
Ethylbenzene	430	100	ug/L	100	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	4.0	ug/L	10	10/31/18	MH	SW8260C
Isopropylbenzene	26	10	ug/L	10	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CB82841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	360	10	ug/L	10	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	50	ug/L	10	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/L	10	10/31/18	MH	SW8260C
Methylene chloride	ND	10	ug/L	10	10/31/18	MH	SW8260C
Naphthalene	2900	100	ug/L	100	10/31/18	MH	SW8260C
n-Butylbenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
n-Propylbenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
o-Xylene	270	10	ug/L	10	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	10	ug/L	10	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
Styrene	ND	10	ug/L	10	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	10	ug/L	10	10/31/18	MH	SW8260C
Tetrachloroethene	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	25	ug/L	10	10/31/18	MH	SW8260C
Toluene	880	100	ug/L	100	10/31/18	MH	SW8260C
Total Xylenes	630	10	ug/L	10	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	10	ug/L	10	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	4.0	ug/L	10	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	50	ug/L	10	10/31/18	MH	SW8260C
Trichloroethene	ND	5.0	ug/L	10	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	10	ug/L	10	10/31/18	MH	SW8260C
Vinyl chloride	ND	2.5	ug/L	10	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	10	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	93		%	10	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	120		%	10	10/31/18	MH	70 - 130 %
% Toluene-d8	92		%	10	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Methylnaphthalene	130	49	ug/L	50	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	4.9	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CB82841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Acenaphthene	75	4.9	ug/L	1	10/30/18	WB	SW8270D
Acenaphthylene	21	4.9	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	6.1	ug/L	1	10/30/18	WB	SW8270D
Anthracene	5.5	4.9	ug/L	1	10/30/18	WB	SW8270D
Benz(a)anthracene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Benzo(a)pyrene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Benzo(b)fluoranthene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Benzo(ghi)perylene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Benzo(k)fluoranthene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	9.8	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2.0	ug/L	1	10/30/18	WB	SW8270D
Carbazole	7.0	4.9	ug/L	1	10/30/18	WB	SW8270D
Chrysene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Dibenzofuran	2.9	0.98	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Fluoranthene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Fluorene	22	4.9	ug/L	1	10/30/18	WB	SW8270D
Hexachlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Hexachlorobutadiene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Hexachloroethane	ND	3.0	ug/L	1	10/30/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Naphthalene	1900	250	ug/L	50	10/30/18	WB	SW8270D
Nitrobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Pentachloronitrobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Pentachlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D

Project ID: ROCKVILLE MGP
Client ID: MW-18D

Phoenix I.D.: CB82841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	28	4.9	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Pyrene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Pyridine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	76		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	53		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	56		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	40		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	75		%	1	10/30/18	WB	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.

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.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

Semi-Volatile Comment:
Due to the presence of a large amount of non-target petroleum material, this sample required a dilution and/or could not be analyzed via SIM; some compounds are evaluated below the lowest calibration standard.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	16:05
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82842

Project ID: ROCKVILLE MGP
Client ID: MW-13S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.261	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.104	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.159	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	0.005	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.072	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13S

Phoenix I.D.: CB82842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13S

Phoenix I.D.: CB82842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	90		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.6	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.6	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.6	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	11	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.3	ug/L	1	10/30/18	WB	SW8270D

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Project ID: ROCKVILLE MGP
Client ID: MW-13S

Phoenix I.D.: CB82842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	53	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.3	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	1.1	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	56		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	37		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	47		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	49		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	72		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.53	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.1	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.21	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	0.64	0.53	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13S

Phoenix I.D.: CB82842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.53	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.53	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.11	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.84	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.53	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	46		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	53		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	56		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	76		%	1	10/29/18	HM	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.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	8:35
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82843

Project ID: ROCKVILLE MGP
Client ID: MW-26S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.197	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.003	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.071	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26S

Phoenix I.D.: CB82843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26S

Phoenix I.D.: CB82843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26S

Phoenix I.D.: CB82843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	50	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	5.4	5.0	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	41		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	58		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	54		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	79		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.0	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26S

Phoenix I.D.: CB82843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.80	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	70		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	53		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	69		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	65		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	82		%	1	10/29/18	HM	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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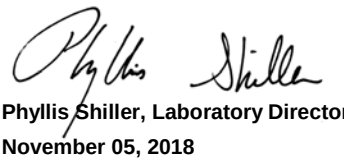

Phyllis Shiller, Laboratory Director
November 05, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 05, 2018

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:		10/24/18	9:10
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82844

Project ID: ROCKVILLE MGP
Client ID: MW-28S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.227	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/30/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-28S

Phoenix I.D.: CB82844

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-28S

Phoenix I.D.: CB82844

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-28S

Phoenix I.D.: CB82844

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.94	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	99		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	42		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	57		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	58		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	78		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.47	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.94	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.47	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.09	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-28S

Phoenix I.D.: CB82844

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.47	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	0.10	0.09	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.09	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.09	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.75	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	53		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	64		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	68		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	78		%	1	10/29/18	HM	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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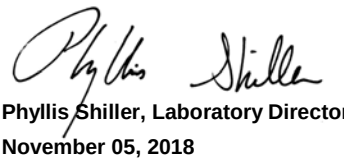

Phyllis Shiller, Laboratory Director
November 05, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 05, 2018

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:		10/24/18	10:20
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82845

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.052	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.004	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	0.003	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.069	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Phoenix I.D.: CB82845

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloroform	1.3	1.0	ug/L	1	10/31/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Phoenix I.D.: CB82845

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Naphthalene	1.3	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	10/31/18	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	10/31/18	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	10/31/18	MH	70 - 130 %
% Toluene-d8	91		%	1	10/31/18	MH	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.9	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Phoenix I.D.: CB82845

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	50	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.99	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	92		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	47		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	68		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	60		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	74		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.99	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	0.20	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	0.55	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	0.08	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	0.36	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Phoenix I.D.: CB82845

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	1.1	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.79	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	0.25	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	0.10	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	75		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	64		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	85		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	78		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	79		%	1	10/29/18	HM	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 05, 2018
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 05, 2018

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:		10/24/18	11:40
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82846

Project ID: ROCKVILLE MGP
Client ID: MW-27S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.268	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.002	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.002	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	0.006	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.069	0.067	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-27S

Phoenix I.D.: CB82846

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-27S

Phoenix I.D.: CB82846

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	90		%	1	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	104		%	1	10/31/18	HM	70 - 130 %
% Toluene-d8	99		%	1	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.8	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-27S

Phoenix I.D.: CB82846

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	49	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.98	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	92		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	46		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	62		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	58		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	73		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.49	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.98	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.49	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-27S

Phoenix I.D.: CB82846

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.49	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.49	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	0.15	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.78	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	59		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	73		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	72		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	77		%	1	10/29/18	HM	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.

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:
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 05, 2018
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 05, 2018

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:		10/24/18	11:42
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82847

Project ID: ROCKVILLE MGP
Client ID: MW-26BR

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.100	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.002	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.067	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	67		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26BR

Phoenix I.D.: CB82847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26BR

Phoenix I.D.: CB82847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	92		%	1	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	103		%	1	10/31/18	HM	70 - 130 %
% Toluene-d8	103		%	1	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26BR

Phoenix I.D.: CB82847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	59		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	41		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	52		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	53		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	74		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.96	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-26BR

Phoenix I.D.: CB82847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	0.10	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	88		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	53		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	66		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	67		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	77		%	1	10/29/18	HM	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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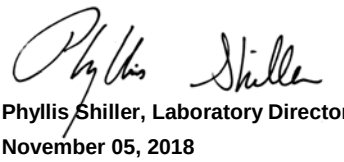

Phyllis Shiller, Laboratory Director
November 05, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 05, 2018

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:		10/24/18	13:37
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82848

Project ID: ROCKVILLE MGP
Client ID: MW-13D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.217	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	0.053	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.173	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	0.005	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.069	mg/L	1	10/29/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/29/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	10/29/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13D

Phoenix I.D.: CB82848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13D

Phoenix I.D.: CB82848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	86		%	1	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	106		%	1	10/31/18	HM	70 - 130 %
% Toluene-d8	97		%	1	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13D

Phoenix I.D.: CB82848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	0.96	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	97		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	66		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	44		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	60		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	55		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	73		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.96	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.19	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-13D

Phoenix I.D.: CB82848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	0.82	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.77	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	59		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	78		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	73		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	79		%	1	10/29/18	HM	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 05, 2018
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 05, 2018

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:		10/24/18	14:10
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82849

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	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.298	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.069	mg/L	1	10/30/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	65		%	1	10/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CB82849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CB82849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	1	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	86		%	1	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	102		%	1	10/31/18	HM	70 - 130 %
% Toluene-d8	102		%	1	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/30/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	10/30/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CB82849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
Acetophenone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Aniline	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Benzoic acid	ND	50	ug/L	1	10/30/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Isophorone	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/30/18	WB	SW8270D
Phenol	ND	1.0	ug/L	1	10/30/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	98		%	1	10/30/18	WB	15 - 110 %
% 2-Fluorobiphenyl	71		%	1	10/30/18	WB	30 - 130 %
% 2-Fluorophenol	51		%	1	10/30/18	WB	15 - 110 %
% Nitrobenzene-d5	71		%	1	10/30/18	WB	30 - 130 %
% Phenol-d5	66		%	1	10/30/18	WB	15 - 110 %
% Terphenyl-d14	78		%	1	10/30/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	1.0	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/29/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-7D

Phoenix I.D.: CB82849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.80	ug/L	1	10/29/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/29/18	HM	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	10/29/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	92		%	1	10/29/18	HM	15 - 110 %
% 2-Fluorobiphenyl	70		%	1	10/29/18	HM	30 - 130 %
% 2-Fluorophenol	61		%	1	10/29/18	HM	15 - 110 %
% Nitrobenzene-d5	73		%	1	10/29/18	HM	30 - 130 %
% Phenol-d5	72		%	1	10/29/18	HM	15 - 110 %
% Terphenyl-d14	77		%	1	10/29/18	HM	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 05, 2018
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 05, 2018

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:		10/24/18	14:36
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82850

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	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	0.204	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	10/31/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	3.2	0.069	mg/L	1	10/30/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	10/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	10/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CB82850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	7.0	ug/L	20	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	9.6	ug/L	20	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	120	20	ug/L	20	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	10	ug/L	20	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	36	20	ug/L	20	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	20	ug/L	20	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	20	ug/L	20	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	20	ug/L	20	10/31/18	HM	SW8260C
2-Hexanone	ND	40	ug/L	20	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	20	ug/L	20	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	20	ug/L	20	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	100	ug/L	20	10/31/18	HM	SW8260C
Acetone	ND	500	ug/L	20	10/31/18	HM	SW8260C
Acrylonitrile	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Benzene	890	140	ug/L	200	10/31/18	HM	SW8260C
Bromobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
Bromochloromethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
Bromodichloromethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Bromoform	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Bromomethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Carbon Disulfide	ND	40	ug/L	20	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Chlorobenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
Chloroethane	ND	7.4	ug/L	20	10/31/18	HM	SW8260C
Chloroform	ND	6.0	ug/L	20	10/31/18	HM	SW8260C
Chloromethane	ND	18	ug/L	20	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	20	ug/L	20	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	8.0	ug/L	20	10/31/18	HM	SW8260C
Dibromochloromethane	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Dibromomethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
Ethylbenzene	860	200	ug/L	200	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	7.4	ug/L	20	10/31/18	HM	SW8260C
Isopropylbenzene	36	20	ug/L	20	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CB82850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	650	20	ug/L	20	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	100	ug/L	20	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	ug/L	20	10/31/18	HM	SW8260C
Methylene chloride	ND	20	ug/L	20	10/31/18	HM	SW8260C
Naphthalene	3400	200	ug/L	200	10/31/18	HM	SW8260C
n-Butylbenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
n-Propylbenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
o-Xylene	420	20	ug/L	20	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	20	ug/L	20	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
Styrene	ND	20	ug/L	20	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	20	ug/L	20	10/31/18	HM	SW8260C
Tetrachloroethene	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	50	ug/L	20	10/31/18	HM	SW8260C
Toluene	1300	200	ug/L	200	10/31/18	HM	SW8260C
Total Xylenes	1070	20	ug/L	20	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	20	ug/L	20	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	8.0	ug/L	20	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	100	ug/L	20	10/31/18	HM	SW8260C
Trichloroethene	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	20	ug/L	20	10/31/18	HM	SW8260C
Vinyl chloride	ND	5.0	ug/L	20	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	20	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	96		%	20	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	119		%	20	10/31/18	HM	70 - 130 %
% Toluene-d8	102		%	20	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
1,2-Dichlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
1,3-Dichlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
1,4-Dichlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4,5-Trichlorophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4,6-Trichlorophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4-Dichlorophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4-Dimethylphenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4-Dinitrophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2-Chlorophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2-Methylnaphthalene	230	50	ug/L	50	10/30/18	PS	SW8270D
2-Methylphenol (o-cresol)	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
2-Nitrophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	5.0	ug/L	1	10/30/18	PS	SW8270D

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CB82850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Chloro-3-methylphenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
4-Nitrophenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Acenaphthene	ND	150	ug/L	50	10/30/18	PS	SW8270D
Acenaphthylene	20	5.0	ug/L	1	10/30/18	PS	SW8270D
Acetophenone	ND	9.9	ug/L	1	10/30/18	PS	SW8270D
Aniline	ND	6.1	ug/L	1	10/30/18	PS	SW8270D
Anthracene	5.8	5.0	ug/L	1	10/30/18	PS	SW8270D
Benz(a)anthracene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Benzidine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Benzo(a)pyrene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Benzo(b)fluoranthene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Benzo(ghi)perylene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Benzo(k)fluoranthene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Benzoic acid	ND	15	ug/L	1	10/30/18	PS	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Bis(2-chloroethyl)ether	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2.0	ug/L	1	10/30/18	PS	SW8270D
Carbazole	8.0	5.0	ug/L	1	10/30/18	PS	SW8270D
Chrysene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Dibenz(a,h)anthracene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Dibenzofuran	3.5	0.99	ug/L	1	10/30/18	PS	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Fluoranthene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Fluorene	25	5.0	ug/L	1	10/30/18	PS	SW8270D
Hexachlorobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Hexachlorobutadiene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Hexachlorocyclopentadiene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Hexachloroethane	ND	3.0	ug/L	1	10/30/18	PS	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.99	ug/L	1	10/30/18	PS	SW8270D
Isophorone	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Naphthalene	3300	250	ug/L	50	10/30/18	PS	SW8270D
Nitrobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Pentachloronitrobenzene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Pentachlorophenol	ND	1.0	ug/L	1	10/30/18	PS	SW8270D

Project ID: ROCKVILLE MGP
Client ID: MW-DUP

Phoenix I.D.: CB82850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	30	5.0	ug/L	1	10/30/18	PS	SW8270D
Phenol	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Pyrene	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
Pyridine	ND	5.0	ug/L	1	10/30/18	PS	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	10/30/18	PS	15 - 110 %
% 2-Fluorobiphenyl	70		%	1	10/30/18	PS	30 - 130 %
% 2-Fluorophenol	71		%	1	10/30/18	PS	15 - 110 %
% Nitrobenzene-d5	68		%	1	10/30/18	PS	30 - 130 %
% Phenol-d5	44		%	1	10/30/18	PS	15 - 110 %
% Terphenyl-d14	79		%	1	10/30/18	PS	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.

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.

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.

Semi-Volatile Comment:
Due to the presence of a large amount of non-target petroleum material, this sample required a dilution and/or could not be analyzed via SIM; some compounds are evaluated below the lowest calibration standard.

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
November 05, 2018
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 05, 2018

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:		10/24/18	15:00
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82851

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Barium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Chromium	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	10/29/18	RS	SW7470A
Nickel	< 0.001	0.001	mg/L	1	10/27/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	10/27/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	10/27/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	10/31/18	CPP	SW6020B
Vanadium	< 0.002	0.002	mg/L	1	10/27/18	CPP	SW6010C
Zinc	< 0.004	0.004	mg/L	1	10/27/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/01/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				10/26/18	P/D	SW3510C/SW3520C
Mercury Digestion	Completed				10/29/18	EV/EV	SW7470A
Semi-Volatile Extraction	Completed				10/26/18	P/D/R	SW3520C
Total Metals Digestion	Completed				10/26/18	AG	
Total Metals Digestion MS	Completed				10/27/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.071	mg/L	1	10/30/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	10/30/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	60		%	1	10/30/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CB82851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/31/18	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Acetone	ND	25	ug/L	1	10/31/18	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Benzene	ND	0.70	ug/L	1	10/31/18	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/31/18	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
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Phoenix I.D.: CB82851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Styrene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/31/18	HM	SW8260C
Toluene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/31/18	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/31/18	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/31/18	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	106		%	1	10/31/18	HM	70 - 130 %
% Bromofluorobenzene	89		%	1	10/31/18	HM	70 - 130 %
% Dibromofluoromethane	102		%	1	10/31/18	HM	70 - 130 %
% Toluene-d8	97		%	1	10/31/18	HM	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	10/31/18	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	10/31/18	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	10/31/18	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2,4-Dichlorophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2,4-Dimethylphenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2,4-Dinitrophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
2-Chloronaphthalene	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
2-Chlorophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
2-Nitroaniline	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
2-Nitrophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.9	ug/L	1	10/31/18	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
3-Nitroaniline	ND	5.0	ug/L	1	10/31/18	WB	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	0.99	ug/L	1	10/31/18	WB	SW8270D
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
4-Chloroaniline	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
4-Nitroaniline	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
4-Nitrophenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
Acetophenone	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Aniline	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Benzidine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Benzoic acid	ND	50	ug/L	1	10/31/18	WB	SW8270D
Benzyl butyl phthalate	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Carbazole	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Diethyl phthalate	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Dimethylphthalate	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Di-n-butylphthalate	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Di-n-octylphthalate	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Isophorone	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.0	ug/L	1	10/31/18	WB	SW8270D
Phenol	ND	0.99	ug/L	1	10/31/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	10/31/18	WB	15 - 110 %
% 2-Fluorobiphenyl	56		%	1	10/31/18	WB	30 - 130 %
% 2-Fluorophenol	34		%	1	10/31/18	WB	15 - 110 %
% Nitrobenzene-d5	52		%	1	10/31/18	WB	30 - 130 %
% Phenol-d5	40		%	1	10/31/18	WB	15 - 110 %
% Terphenyl-d14	74		%	1	10/31/18	WB	30 - 130 %
Semivolatiles (SIM)							
1,2,4,5-Tetrachlorobenzene	ND	0.50	ug/L	1	10/30/18	HM	SW8270D (SIM)
2-Methylnaphthalene	ND	0.99	ug/L	1	10/30/18	HM	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.20	ug/L	1	10/30/18	HM	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Bis(2-ethylhexyl)phthalate	ND	0.50	ug/L	1	10/30/18	HM	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Dibenzofuran	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	10/30/18	HM	SW8270D (SIM)

Ver 1

Project ID: ROCKVILLE MGP
Client ID: EQ BLANK

Phoenix I.D.: CB82851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobenzene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	1	10/30/18	HM	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Hexachloroethane	ND	0.50	ug/L	1	10/30/18	HM	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Naphthalene	0.14	0.10	ug/L	1	10/30/18	HM	SW8270D (SIM)
Nitrobenzene	ND	0.10	ug/L	1	10/30/18	HM	SW8270D (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	1	10/30/18	HM	SW8270D (SIM)
Pentachlorophenol	ND	0.79	ug/L	1	10/30/18	HM	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	10/30/18	HM	SW8270D (SIM)
Pyridine	ND	0.50	ug/L	1	10/30/18	HM	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	90		%	1	10/30/18	HM	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	10/30/18	HM	30 - 130 %
% 2-Fluorophenol	46		%	1	10/30/18	HM	15 - 110 %
% Nitrobenzene-d5	63		%	1	10/30/18	HM	30 - 130 %
% Phenol-d5	54		%	1	10/30/18	HM	15 - 110 %
% Terphenyl-d14	82		%	1	10/30/18	HM	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 05, 2018
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 05, 2018

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:		10/24/18	
Location Code:	TIGHE-DAS	Received by:	CP	10/26/18	12:48
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB82836
Phoenix ID: CB82852

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	10/30/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	10/30/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	10/30/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	10/30/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	10/30/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	10/30/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	10/30/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CB82852

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	10/30/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	10/30/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	10/30/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	10/30/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	10/30/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	10/30/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	10/30/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	10/30/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	10/30/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	10/30/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	10/30/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	10/30/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	10/30/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	10/30/18	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	10/30/18	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	10/30/18	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CB82852

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	89		%	1	10/30/18	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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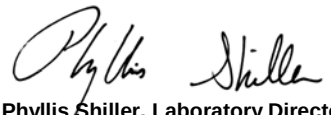

Phyllis Shiller, Laboratory Director
November 05, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 05, 2018

QA/QC Data

SDG I.D.: GCB82836

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 453882 (mg/L), QC Sample No: CB83200 (CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	89.0			85.2			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 453757 (mg/L), QC Sample No: CB82080 (CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	107			103			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.8			95.9			75 - 125	20
Barium	BRL	0.002	0.034	0.033	3.00	103			100			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	97.9			95.9			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	98.1			94.6			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	99.9			97.1			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	102			98.7			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	100			97.0			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	99.3			95.7			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	94.5			91.4			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	96.5			95.0			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	101			98.8			75 - 125	20
Zinc	BRL	0.004	0.008	0.007	NC	96.5			93.2			75 - 125	20
QA/QC Batch 453844 (mg/L), QC Sample No: CB82087 5X (CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0005	<0.0005	<0.0005	NC	105			103			75 - 125	20

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QA/QC Report

November 05, 2018

QA/QC Data

SDG I.D.: GCB82836

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 454189 (mg/L), QC Sample No: CB82836 (CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850)													
Total Cyanide	BRL	0.010	0.013	<0.010	NC	96.0			105			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 454364 (mg/L), QC Sample No: CB82851 (CB82851)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	95.7			106			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 05, 2018

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 453741 (mg/L), QC Sample No: CB82836 (CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)											
TPH by GC (Extractable Products) - Ground Water											
Ext. Petroleum H.C. (C9-C36)	ND	0.10	106	99	6.8				60 - 120	30	
% n-Pentacosane	69	%	74	67	9.9				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 454143 (ug/L), QC Sample No: CB82838 (CB82838)											
Semivolatiles - Ground Water											
1,2,4-Trichlorobenzene	ND	3.5	58	61	5.0				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	53	55	3.7				30 - 130	20	
1,2-Diphenylhydrazine	ND	1.6	79	81	2.5				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	51	56	9.3				30 - 130	20	
1,4-Dichlorobenzene	ND	1.0	52	57	9.2				30 - 130	20	
2,4,5-Trichlorophenol	ND	1.0	82	88	7.1				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	78	83	6.2				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	67	69	2.9				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	71	67	5.8				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	91	88	3.4				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	96	101	5.1				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	89	94	5.5				30 - 130	20	
2-Chloronaphthalene	ND	3.5	70	74	5.6				30 - 130	20	
2-Chlorophenol	ND	1.0	49	54	9.7				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	58	59	1.7				30 - 130	20	
2-Nitroaniline	ND	3.5	108	116	7.1				30 - 130	20	
2-Nitrophenol	ND	1.0	66	65	1.5				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	63	64	1.6				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	66	87	27.5				30 - 130	20	r
3-Nitroaniline	ND	5.0	100	109	8.6				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	97	102	5.0				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	86	89	3.4				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	84	86	2.4				30 - 130	20	
4-Chloroaniline	ND	3.5	75	81	7.7				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	1.0	80	83	3.7				30 - 130	20	
4-Nitroaniline	ND	5.0	88	90	2.2				30 - 130	20	
4-Nitrophenol	ND	1.0	90	100	10.5				15 - 130	20	
Acetophenone	ND	3.5	62	61	1.6				30 - 130	20	
Aniline	ND	3.5	49	58	16.8				30 - 130	20	
Benzidine	ND	4.5	<10	99	NC				30 - 130	20	l
Benzoic acid	ND	10	61	34	56.8				30 - 130	20	r
Benzyl butyl phthalate	ND	1.5	92	94	2.2				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	69	71	2.9				30 - 130	20	

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bis(2-chloroethyl)ether	ND	1.0	52	53	1.9				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	49	48	2.1				30 - 130	20	
Carbazole	ND	5.0	87	91	4.5				30 - 130	20	
Diethyl phthalate	ND	1.5	88	91	3.4				30 - 130	20	
Dimethylphthalate	ND	1.5	86	90	4.5				30 - 130	20	
Di-n-butylphthalate	ND	1.5	93	96	3.2				30 - 130	20	
Di-n-octylphthalate	ND	1.5	99	101	2.0				30 - 130	20	
Isophorone	ND	3.5	70	71	1.4				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	51	55	7.5				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	72	71	1.4				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	79	82	3.7				30 - 130	20	
Phenol	ND	1.0	45	47	4.3				15 - 130	20	
% 2,4,6-Tribromophenol	83	%	91	95	4.3				15 - 110	20	
% 2-Fluorobiphenyl	58	%	61	64	4.8				30 - 130	20	
% 2-Fluorophenol	44	%	38	42	10.0				15 - 110	20	
% Nitrobenzene-d5	54	%	54	53	1.9				30 - 130	20	
% Phenol-d5	53	%	42	43	2.4				15 - 110	20	
% Terphenyl-d14	82	%	70	72	2.8				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 453740 (ug/L), QC Sample No: CB83214 (CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)

Semivolatiles - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	3.5	64	69	7.5				30 - 130	20	
1,2,4-Trichlorobenzene	ND	3.5	55	53	3.7				30 - 130	20	
1,2-Dichlorobenzene	ND	1.0	45	35	25.0				30 - 130	20	r
1,2-Diphenylhydrazine	ND	1.6	71	79	10.7				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	45	32	33.8				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0	46	34	30.0				30 - 130	20	r
2,4,5-Trichlorophenol	ND	1.0	78	86	9.8				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	75	83	10.1				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	60	64	6.5				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	67	72	7.2				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	15	52	110.4				30 - 130	20	l,r
2,4-Dinitrotoluene	ND	3.5	89	100	11.6				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	81	92	12.7				30 - 130	20	
2-Chloronaphthalene	ND	3.5	69	73	5.6				30 - 130	20	
2-Chlorophenol	ND	1.0	46	39	16.5				30 - 130	20	
2-Methylnaphthalene	ND	3.5	60	64	6.5				30 - 130	20	
2-Methylphenol (o-cresol)	ND	1.0	52	52	0.0				30 - 130	20	
2-Nitroaniline	ND	3.5	112	128	13.3				30 - 130	20	
2-Nitrophenol	ND	1.0	55	56	1.8				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	55	55	0.0				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	53	70	27.6				30 - 130	20	r
3-Nitroaniline	ND	5.0	79	94	17.3				30 - 130	20	
4,6-Dinitro-2-methylphenol	ND	1.0	33	69	70.6				30 - 130	20	r
4-Bromophenyl phenyl ether	ND	3.5	83	92	10.3				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	73	83	12.8				30 - 130	20	
4-Chloroaniline	ND	3.5	57	76	28.6				30 - 130	20	r
4-Chlorophenyl phenyl ether	ND	1.0	77	85	9.9				30 - 130	20	
4-Nitroaniline	ND	5.0	73	83	12.8				30 - 130	20	

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Nitrophenol	ND	1.0	80	90	11.8				15 - 130	20	
Acenaphthene	ND	1.5	71	77	8.1				30 - 130	20	
Acenaphthylene	ND	3.5	65	72	10.2				30 - 130	20	
Acetophenone	ND	3.5	58	58	0.0				30 - 130	20	
Aniline	ND	3.5	76	81	6.4				30 - 130	20	
Anthracene	ND	1.5	75	83	10.1				30 - 130	20	
Benz(a)anthracene	ND	1.5	79	90	13.0				30 - 130	20	
Benzidine	ND	4.5	49	98	66.7				30 - 130	20	r
Benzo(a)pyrene	ND	1.5	71	80	11.9				30 - 130	20	
Benzo(b)fluoranthene	ND	1.5	79	89	11.9				30 - 130	20	
Benzo(ghi)perylene	ND	1.5	69	86	21.9				30 - 130	20	r
Benzo(k)fluoranthene	ND	1.5	79	80	1.3				30 - 130	20	
Benzoic acid	ND	10	55	66	18.2				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	83	91	9.2				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	60	62	3.3				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	45	37	19.5				30 - 130	20	
Bis(2-chloroisopropyl)ether	ND	1.0	38	34	11.1				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	1.5	79	90	13.0				30 - 130	20	
Carbazole	ND	5.0	81	91	11.6				30 - 130	20	
Chrysene	ND	1.5	78	87	10.9				30 - 130	20	
Dibenz(a,h)anthracene	ND	1.5	77	95	20.9				30 - 130	20	r
Dibenzofuran	ND	3.5	73	80	9.2				30 - 130	20	
Diethyl phthalate	ND	1.5	87	95	8.8				30 - 130	20	
Dimethylphthalate	ND	1.5	84	92	9.1				30 - 130	20	
Di-n-butylphthalate	ND	1.5	89	99	10.6				30 - 130	20	
Di-n-octylphthalate	ND	1.5	82	93	12.6				30 - 130	20	
Fluoranthene	ND	1.5	83	93	11.4				30 - 130	20	
Fluorene	ND	1.5	77	83	7.5				30 - 130	20	
Hexachlorobenzene	ND	3.5	83	91	9.2				30 - 130	20	
Hexachlorobutadiene	ND	3.5	59	55	7.0				30 - 130	20	
Hexachlorocyclopentadiene	ND	3.5	18	24	28.6				30 - 130	20	l,r
Hexachloroethane	ND	3.5	44	32	31.6				30 - 130	20	r
Indeno(1,2,3-cd)pyrene	ND	3.5	73	89	19.8				30 - 130	20	
Isophorone	ND	3.5	56	63	11.8				30 - 130	20	
Naphthalene	ND	1.5	55	54	1.8				30 - 130	20	
Nitrobenzene	ND	3.5	55	54	1.8				30 - 130	20	
N-Nitrosodimethylamine	ND	1.0	31	23	29.6				30 - 130	20	l,r
N-Nitrosodi-n-propylamine	ND	3.5	60	63	4.9				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	72	81	11.8				30 - 130	20	
Pentachloronitrobenzene	ND	5.0	83	94	12.4				30 - 130	20	
Pentachlorophenol	ND	3.5	92	105	13.2				30 - 130	20	
Phenanthrene	ND	1.5	77	84	8.7				30 - 130	20	
Phenol	ND	1.0	42	38	10.0				15 - 130	20	
Pyrene	ND	1.5	82	90	9.3				30 - 130	20	
Pyridine	ND	5.0	18	17	5.7				30 - 130	20	l
% 2,4,6-Tribromophenol	71	%	75	86	13.7				15 - 110	20	
% 2-Fluorobiphenyl	59	%	66	69	4.4				30 - 130	20	
% 2-Fluorophenol	30	%	34	23	38.6				15 - 110	20	r
% Nitrobenzene-d5	45	%	51	50	2.0				30 - 130	20	
% Phenol-d5	11	%	39	34	13.7				15 - 110	20	s
% Terphenyl-d14	80	%	76	86	12.3				30 - 130	20	

QA/QC Data

SDG I.D.: GCB82836

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 454143 (ug/L), QC Sample No: CB82838 (CB82838)											
Semivolatiles (SIM) - Ground Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	54	52	3.8				30 - 130	20	
2-Methylnaphthalene	ND	0.10	56	43	26.3				30 - 130	20	r
Acenaphthene	ND	0.02	65	65	0.0				30 - 130	20	
Acenaphthylene	ND	0.02	58	58	0.0				30 - 130	20	
Anthracene	ND	0.02	72	71	1.4				30 - 130	20	
Benz(a)anthracene	ND	0.02	76	73	4.0				30 - 130	20	
Benzo(a)pyrene	ND	0.02	76	73	4.0				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	81	77	5.1				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	70	67	4.4				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	75	73	2.7				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.10	104	99	4.9				30 - 130	20	
Chrysene	ND	0.02	76	72	5.4				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.02	83	78	6.2				30 - 130	20	
Dibenzofuran	ND	0.05	64	62	3.2				30 - 130	20	
Fluoranthene	ND	0.02	71	69	2.9				30 - 130	20	
Fluorene	ND	0.02	67	66	1.5				30 - 130	20	
Hexachlorobenzene	ND	0.02	73	72	1.4				30 - 130	20	
Hexachlorobutadiene	ND	0.05	42	43	2.4				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	28	29	3.5				30 - 130	20	l
Hexachloroethane	ND	0.05	35	35	0.0				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	78	74	5.3				30 - 130	20	
Naphthalene	ND	0.10	50	46	8.3				30 - 130	20	
Nitrobenzene	ND	0.05	48	46	4.3				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	85	83	2.4				30 - 130	20	
Pentachlorophenol	ND	0.20	122	120	1.7				30 - 130	20	
Phenanthrene	ND	0.02	69	67	2.9				30 - 130	20	
Pyrene	ND	0.02	74	70	5.6				30 - 130	20	
Pyridine	ND	0.50	33	42	24.0				30 - 130	20	r
% 2,4,6-Tribromophenol	83	%	83	84	1.2				15 - 110	20	
% 2-Fluorobiphenyl	53	%	56	55	1.8				30 - 130	20	
% 2-Fluorophenol	51	%	34	34	0.0				15 - 110	20	
% Nitrobenzene-d5	56	%	48	48	0.0				30 - 130	20	
% Phenol-d5	55	%	38	38	0.0				15 - 110	20	
% Terphenyl-d14	74	%	70	66	5.9				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%)											
QA/QC Batch 453740 (ug/L), QC Sample No: CB83214 (CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851)											
Semivolatiles (SIM) - Ground Water											
1,2,4,5-Tetrachlorobenzene	ND	0.50	52	56	7.4				30 - 130	20	
2-Methylnaphthalene	ND	0.10	53	55	3.7				30 - 130	20	
Acenaphthene	ND	0.02	65	70	7.4				30 - 130	20	
Acenaphthylene	ND	0.02	57	62	8.4				30 - 130	20	
Anthracene	ND	0.02	69	76	9.7				30 - 130	20	
Benz(a)anthracene	ND	0.02	69	77	11.0				30 - 130	20	
Benzo(a)pyrene	ND	0.02	69	78	12.2				30 - 130	20	

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(b)fluoranthene	ND	0.02	74	82	10.3				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	67	75	11.3				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	74	85	13.8				30 - 130	20	
Bis(2-ethylhexyl)phthalate	ND	0.10	87	96	9.8				30 - 130	20	
Chrysene	ND	0.02	72	81	11.8				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.02	78	88	12.0				30 - 130	20	
Dibenzofuran	ND	0.05	61	67	9.4				30 - 130	20	
Fluoranthene	ND	0.02	68	75	9.8				30 - 130	20	
Fluorene	ND	0.02	66	72	8.7				30 - 130	20	
Hexachlorobenzene	ND	0.02	67	77	13.9				30 - 130	20	
Hexachlorobutadiene	ND	0.05	46	41	11.5				30 - 130	20	
Hexachlorocyclopentadiene	ND	0.05	30	31	3.3				30 - 130	20	
Hexachloroethane	ND	0.05	35	27	25.8				30 - 130	20	l,r
Indeno(1,2,3-cd)pyrene	ND	0.02	72	81	11.8				30 - 130	20	
Naphthalene	ND	0.10	49	50	2.0				30 - 130	20	
Nitrobenzene	ND	0.05	52	50	3.9				30 - 130	20	
Pentachloronitrobenzene	ND	0.10	76	81	6.4				30 - 130	20	
Pentachlorophenol	ND	0.20	97	99	2.0				30 - 130	20	
Phenanthrene	ND	0.02	67	74	9.9				30 - 130	20	
Pyrene	ND	0.02	69	78	12.2				30 - 130	20	
Pyridine	ND	0.50	30	29	3.4				30 - 130	20	l
% 2,4,6-Tribromophenol	80	%	77	85	9.9				15 - 110	20	
% 2-Fluorobiphenyl	59	%	55	59	7.0				30 - 130	20	
% 2-Fluorophenol	41	%	35	25	33.3				15 - 110	20	r
% Nitrobenzene-d5	53	%	51	49	4.0				30 - 130	20	
% Phenol-d5	17	%	42	36	15.4				15 - 110	20	
% Terphenyl-d14	77	%	63	73	14.7				30 - 130	20	

Comment:

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 454275 (ug/L), QC Sample No: CB82540 (CB82836, CB82837, CB82838, CB82839, CB82852)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	91	106	15.2				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	84	102	19.4				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	91	115	23.3				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	80	103	25.1				70 - 130	30	
1,1-Dichloroethane	ND	1.0	87	103	16.8				70 - 130	30	
1,1-Dichloroethene	ND	1.0	88	107	19.5				70 - 130	30	
1,1-Dichloropropene	ND	1.0	84	101	18.4				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	82	111	30.1				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	89	108	19.3				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	89	109	20.2				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	97	108	10.7				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	95	117	20.8				70 - 130	30	
1,2-Dibromoethane	ND	1.0	86	106	20.8				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	92	109	16.9				70 - 130	30	
1,2-Dichloroethane	ND	1.0	83	104	22.5				70 - 130	30	
1,2-Dichloropropane	ND	1.0	84	104	21.3				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	95	105	10.0				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	94	107	12.9				70 - 130	30	
1,3-Dichloropropane	ND	1.0	86	105	19.9				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	93	107	14.0				70 - 130	30	

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
2,2-Dichloropropane	ND	1.0	83	101	19.6				70 - 130	30
2-Chlorotoluene	ND	1.0	98	109	10.6				70 - 130	30
2-Hexanone	ND	5.0	80	106	28.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	98	109	10.6				70 - 130	30
4-Chlorotoluene	ND	1.0	95	105	10.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	75	101	29.5				70 - 130	30
Acetone	ND	5.0	79	95	18.4				70 - 130	30
Acrylonitrile	ND	5.0	78	101	25.7				70 - 130	30
Benzene	ND	0.70	87	103	16.8				70 - 130	30
Bromobenzene	ND	1.0	95	108	12.8				70 - 130	30
Bromochloromethane	ND	1.0	82	101	20.8				70 - 130	30
Bromodichloromethane	ND	0.50	85	107	22.9				70 - 130	30
Bromoform	ND	1.0	84	107	24.1				70 - 130	30
Bromomethane	ND	1.0	80	100	22.2				70 - 130	30
Carbon Disulfide	ND	1.0	85	100	16.2				70 - 130	30
Carbon tetrachloride	ND	1.0	82	103	22.7				70 - 130	30
Chlorobenzene	ND	1.0	92	105	13.2				70 - 130	30
Chloroethane	ND	1.0	85	97	13.2				70 - 130	30
Chloroform	ND	1.0	83	101	19.6				70 - 130	30
Chloromethane	ND	1.0	77	91	16.7				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	87	103	16.8				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	81	103	23.9				70 - 130	30
Dibromochloromethane	ND	0.50	92	114	21.4				70 - 130	30
Dibromomethane	ND	1.0	79	102	25.4				70 - 130	30
Dichlorodifluoromethane	ND	1.0	75	86	13.7				70 - 130	30
Ethylbenzene	ND	1.0	93	105	12.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	105	111	5.6				70 - 130	30
Isopropylbenzene	ND	1.0	95	106	10.9				70 - 130	30
m&p-Xylene	ND	1.0	93	104	11.2				70 - 130	30
Methyl ethyl ketone	ND	5.0	80	106	28.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	77	104	29.8				70 - 130	30
Methylene chloride	ND	1.0	84	103	20.3				70 - 130	30
Naphthalene	ND	1.0	89	116	26.3				70 - 130	30
n-Butylbenzene	ND	1.0	95	108	12.8				70 - 130	30
n-Propylbenzene	ND	1.0	96	107	10.8				70 - 130	30
o-Xylene	ND	1.0	94	108	13.9				70 - 130	30
p-Isopropyltoluene	ND	1.0	95	107	11.9				70 - 130	30
sec-Butylbenzene	ND	1.0	94	109	14.8				70 - 130	30
Styrene	ND	1.0	89	103	14.6				70 - 130	30
tert-Butylbenzene	ND	1.0	93	105	12.1				70 - 130	30
Tetrachloroethene	ND	1.0	81	101	22.0				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	69	93	29.6				70 - 130	30
Toluene	ND	1.0	88	104	16.7				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	88	102	14.7				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	77	99	25.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	89	112	22.9				70 - 130	30
Trichloroethene	ND	1.0	86	102	17.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	82	97	16.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	83	101	19.6				70 - 130	30
Vinyl chloride	ND	1.0	84	103	20.3				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	98	99	1.0				70 - 130	30
% Bromofluorobenzene	93	%	91	95	4.3				70 - 130	30
% Dibromofluoromethane	98	%	86	98	13.0				70 - 130	30

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% Toluene-d8	89	%		96	98	2.1				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 454467 (ug/L), QC Sample No: CB83044 (CB82839 (10X) , CB82840, CB82841 (10X, 100X) , CB82842, CB82843, CB82844, CB82845)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0		97	81	18.0				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0		91	73	22.0				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50		103	84	20.3				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0		93	72	25.5				70 - 130	30	
1,1-Dichloroethane	ND	1.0		92	79	15.2				70 - 130	30	
1,1-Dichloroethene	ND	1.0		97	79	20.5				70 - 130	30	
1,1-Dichloropropene	ND	1.0		92	72	24.4				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0		93	70	28.2				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0		99	83	17.6				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0		98	77	24.0				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0		98	83	16.6				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0		101	83	19.6				70 - 130	30	
1,2-Dibromoethane	ND	1.0		97	81	18.0				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0		99	83	17.6				70 - 130	30	
1,2-Dichloroethane	ND	1.0		98	74	27.9				70 - 130	30	
1,2-Dichloropropane	ND	1.0		93	76	20.1				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0		96	83	14.5				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0		98	84	15.4				70 - 130	30	
1,3-Dichloropropane	ND	1.0		96	79	19.4				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0		99	84	16.4				70 - 130	30	
2,2-Dichloropropane	ND	1.0		93	76	20.1				70 - 130	30	
2-Chlorotoluene	ND	1.0		99	85	15.2				70 - 130	30	
2-Hexanone	ND	5.0		95	70	30.3				70 - 130	30	
2-Isopropyltoluene	ND	1.0		100	85	16.2				70 - 130	30	
4-Chlorotoluene	ND	1.0		97	84	14.4				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0		91	67	30.4				70 - 130	30	I
Acetone	ND	5.0		75	62	19.0				70 - 130	30	I
Acrylonitrile	ND	5.0		89	71	22.5				70 - 130	30	
Benzene	ND	0.70		90	77	15.6				70 - 130	30	
Bromobenzene	ND	1.0		100	85	16.2				70 - 130	30	
Bromochloromethane	ND	1.0		90	77	15.6				70 - 130	30	
Bromodichloromethane	ND	0.50		94	76	21.2				70 - 130	30	
Bromoform	ND	1.0		93	75	21.4				70 - 130	30	
Bromomethane	ND	1.0		83	71	15.6				70 - 130	30	
Carbon Disulfide	ND	1.0		89	76	15.8				70 - 130	30	
Carbon tetrachloride	ND	1.0		91	71	24.7				70 - 130	30	
Chlorobenzene	ND	1.0		97	82	16.8				70 - 130	30	
Chloroethane	ND	1.0		89	75	17.1				70 - 130	30	
Chloroform	ND	1.0		90	76	16.9				70 - 130	30	
Chloromethane	ND	1.0		75	62	19.0				70 - 130	30	I
cis-1,2-Dichloroethene	ND	1.0		93	80	15.0				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40		92	74	21.7				70 - 130	30	
Dibromochloromethane	ND	0.50		101	84	18.4				70 - 130	30	
Dibromomethane	ND	1.0		91	73	22.0				70 - 130	30	
Dichlorodifluoromethane	ND	1.0		76	55	32.1				70 - 130	30	I,r

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Ethylbenzene	ND	1.0	95	80	17.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	105	96	9.0				70 - 130	30
Isopropylbenzene	ND	1.0	98	83	16.6				70 - 130	30
m&p-Xylene	ND	1.0	95	80	17.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	94	70	29.3				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	89	71	22.5				70 - 130	30
Methylene chloride	ND	1.0	93	79	16.3				70 - 130	30
Naphthalene	ND	1.0	103	81	23.9				70 - 130	30
n-Butylbenzene	ND	1.0	101	84	18.4				70 - 130	30
n-Propylbenzene	ND	1.0	99	82	18.8				70 - 130	30
o-Xylene	ND	1.0	97	81	18.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	98	82	17.8				70 - 130	30
sec-Butylbenzene	ND	1.0	101	82	20.8				70 - 130	30
Styrene	ND	1.0	95	81	15.9				70 - 130	30
tert-Butylbenzene	ND	1.0	97	80	19.2				70 - 130	30
Tetrachloroethene	ND	1.0	91	71	24.7				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	82	64	24.7				70 - 130	30
Toluene	ND	1.0	92	76	19.0				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	94	79	17.3				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	88	72	20.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	96	76	23.3				70 - 130	30
Trichloroethene	ND	1.0	91	76	18.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	91	70	26.1				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	95	71	28.9				70 - 130	30
Vinyl chloride	ND	1.0	92	74	21.7				70 - 130	30
% 1,2-dichlorobenzene-d4	97	%	101	98	3.0				70 - 130	30
% Bromofluorobenzene	91	%	94	91	3.2				70 - 130	30
% Dibromofluoromethane	96	%	95	92	3.2				70 - 130	30
% Toluene-d8	88	%	97	96	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 454231 (ug/L), QC Sample No: CB83890 (CB82846, CB82847, CB82848, CB82849, CB82850 (20X))

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	98	104	5.9				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	103	104	1.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	101	103	2.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	99	98	1.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	102	101	1.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	102	105	2.9				70 - 130	30
1,1-Dichloropropene	ND	1.0	103	103	0.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	102	101	1.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	98	98	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	96	98	2.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	101	101	0.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	96	105	9.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	98	103	5.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	98	102	4.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	97	98	1.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	97	99	2.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	101	1.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	101	1.0				70 - 130	30

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,3-Dichloropropane	ND	1.0	96	100	4.1				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	97	98	1.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	100	100	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	100	97	3.0				70 - 130	30
2-Hexanone	ND	5.0	96	99	3.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	105	103	1.9				70 - 130	30
4-Chlorotoluene	ND	1.0	99	100	1.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	101	102	1.0				70 - 130	30
Acetone	ND	5.0	101	89	12.6				70 - 130	30
Acrylonitrile	ND	5.0	94	93	1.1				70 - 130	30
Benzene	ND	0.70	98	99	1.0				70 - 130	30
Bromobenzene	ND	1.0	98	98	0.0				70 - 130	30
Bromochloromethane	ND	1.0	96	97	1.0				70 - 130	30
Bromodichloromethane	ND	0.50	99	103	4.0				70 - 130	30
Bromoform	ND	1.0	99	101	2.0				70 - 130	30
Bromomethane	ND	1.0	81	90	10.5				70 - 130	30
Carbon Disulfide	ND	1.0	98	101	3.0				70 - 130	30
Carbon tetrachloride	ND	1.0	103	103	0.0				70 - 130	30
Chlorobenzene	ND	1.0	97	99	2.0				70 - 130	30
Chloroethane	ND	1.0	91	98	7.4				70 - 130	30
Chloroform	ND	1.0	97	99	2.0				70 - 130	30
Chloromethane	ND	1.0	80	78	2.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	99	100	1.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	96	100	4.1				70 - 130	30
Dibromochloromethane	ND	0.50	107	108	0.9				70 - 130	30
Dibromomethane	ND	1.0	98	100	2.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	89	87	2.3				70 - 130	30
Ethylbenzene	ND	1.0	100	101	1.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	99	101	2.0				70 - 130	30
Isopropylbenzene	ND	1.0	102	103	1.0				70 - 130	30
m&p-Xylene	ND	1.0	99	103	4.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	103	102	1.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	98	100	2.0				70 - 130	30
Methylene chloride	ND	1.0	99	101	2.0				70 - 130	30
Naphthalene	ND	1.0	103	104	1.0				70 - 130	30
n-Butylbenzene	ND	1.0	103	103	0.0				70 - 130	30
n-Propylbenzene	ND	1.0	101	104	2.9				70 - 130	30
o-Xylene	ND	1.0	100	102	2.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	104	104	0.0				70 - 130	30
sec-Butylbenzene	ND	1.0	109	109	0.0				70 - 130	30
Styrene	ND	1.0	104	103	1.0				70 - 130	30
tert-Butylbenzene	ND	1.0	106	103	2.9				70 - 130	30
Tetrachloroethene	ND	1.0	104	109	4.7				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	95	94	1.1				70 - 130	30
Toluene	ND	1.0	102	101	1.0				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	103	102	1.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	95	98	3.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	104	100	3.9				70 - 130	30
Trichloroethene	ND	1.0	98	102	4.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	98	97	1.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	102	106	3.8				70 - 130	30
Vinyl chloride	ND	1.0	101	100	1.0				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	102	99	3.0				70 - 130	30

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Bromofluorobenzene	88	%	97	101	4.0				70 - 130	30
% Dibromofluoromethane	102	%	102	103	1.0				70 - 130	30
% Toluene-d8	97	%	103	103	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 454436 (ug/L), QC Sample No: CB84412 (CB82850 (200X) , CB82851)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	103	103	0.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	99	103	4.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	102	98	4.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	97	97	0.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	102	101	1.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	98	98	0.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	101	101	0.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	100	101	1.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	94	98	4.2				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	95	99	4.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	97	98	1.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	100	98	2.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	101	96	5.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	98	99	1.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	97	97	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	95	95	0.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	99	103	4.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	99	101	2.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	98	94	4.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	96	98	2.1				70 - 130	30
2,2-Dichloropropane	ND	1.0	104	102	1.9				70 - 130	30
2-Chlorotoluene	ND	1.0	97	97	0.0				70 - 130	30
2-Hexanone	ND	5.0	96	90	6.5				70 - 130	30
2-Isopropyltoluene	ND	1.0	99	103	4.0				70 - 130	30
4-Chlorotoluene	ND	1.0	95	100	5.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	95	94	1.1				70 - 130	30
Acetone	ND	5.0	93	89	4.4				70 - 130	30
Acrylonitrile	ND	5.0	95	91	4.3				70 - 130	30
Benzene	ND	0.70	94	96	2.1				70 - 130	30
Bromobenzene	ND	1.0	97	99	2.0				70 - 130	30
Bromochloromethane	ND	1.0	98	95	3.1				70 - 130	30
Bromodichloromethane	ND	0.50	98	100	2.0				70 - 130	30
Bromoform	ND	1.0	104	103	1.0				70 - 130	30
Bromomethane	ND	1.0	89	90	1.1				70 - 130	30
Carbon Disulfide	ND	1.0	97	95	2.1				70 - 130	30
Carbon tetrachloride	ND	1.0	101	102	1.0				70 - 130	30
Chlorobenzene	ND	1.0	96	98	2.1				70 - 130	30
Chloroethane	ND	1.0	88	89	1.1				70 - 130	30
Chloroform	ND	1.0	96	97	1.0				70 - 130	30
Chloromethane	ND	1.0	74	74	0.0				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	100	96	4.1				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	98	98	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	110	104	5.6				70 - 130	30
Dibromomethane	ND	1.0	99	95	4.1				70 - 130	30

QA/QC Data

SDG I.D.: GCB82836

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dichlorodifluoromethane	ND	1.0	75	73	2.7				70 - 130	30
Ethylbenzene	ND	1.0	102	99	3.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	96	99	3.1				70 - 130	30
Isopropylbenzene	ND	1.0	101	103	2.0				70 - 130	30
m&p-Xylene	ND	1.0	102	100	2.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	98	95	3.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	100	99	1.0				70 - 130	30
Methylene chloride	ND	1.0	100	96	4.1				70 - 130	30
Naphthalene	ND	1.0	101	103	2.0				70 - 130	30
n-Butylbenzene	ND	1.0	100	102	2.0				70 - 130	30
n-Propylbenzene	ND	1.0	96	101	5.1				70 - 130	30
o-Xylene	ND	1.0	103	101	2.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	102	103	1.0				70 - 130	30
sec-Butylbenzene	ND	1.0	106	108	1.9				70 - 130	30
Styrene	ND	1.0	105	101	3.9				70 - 130	30
tert-Butylbenzene	ND	1.0	97	103	6.0				70 - 130	30
Tetrachloroethene	ND	1.0	102	98	4.0				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	89	90	1.1				70 - 130	30
Toluene	ND	1.0	96	99	3.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	101	96	5.1				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	96	97	1.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	97	99	2.0				70 - 130	30
Trichloroethene	ND	1.0	96	97	1.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	95	92	3.2				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	102	100	2.0				70 - 130	30
Vinyl chloride	ND	1.0	95	95	0.0				70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	99	102	3.0				70 - 130	30
% Bromofluorobenzene	90	%	103	97	6.0				70 - 130	30
% Dibromofluoromethane	97	%	103	95	8.1				70 - 130	30
% Toluene-d8	95	%	101	99	2.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.
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
November 05, 2018

Monday, November 05, 2018
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GCB82836 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB82836	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82836	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82836	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.37	0.05	0.3	0.3	ug/L
CB82836	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.20	0.05	0.077	0.077	ug/L
CB82837	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82837	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82837	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.18	0.05	0.077	0.077	ug/L
CB82838	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82838	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82838	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.12	0.05	0.077	0.077	ug/L
CB82839	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82839	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82839	$8270-CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.13	0.05	0.06	0.06	ug/L
CB82839	$8270-CTSIMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	0.39	0.05	0.077	0.077	ug/L
CB82839	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	1.2	0.05	0.077	0.077	ug/L
CB82839	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	3.2	0.05	0.3	0.3	ug/L
CB82839	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.55	0.069	0.25	0.25	mg/L
CB82839	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.55	0.069	0.5	0.5	mg/L
CB82839	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.55	0.069	0.25	0.25	mg/L
CB82840	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82840	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82841	$8260GWR	Total Xylenes	CT / RSR GWPC (ug/l) / Volatiles	630	10	530	530	ug/L
CB82841	$8260GWR	Total Xylenes	CT / RSR SWPC (ug/l) / APS Organics	630	10	270	270	ug/L
CB82841	$8260GWR	Tetrahydrofuran (THF)	CT / RSR GWPC (ug/l) / APS Organics	ND	25	4	4	ug/L
CB82841	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	ND	2.5	1	1	ug/L
CB82841	$8260GWR	Isopropylbenzene	CT / RSR GWPC (ug/l) / APS Organics	26	10	25	25	ug/L
CB82841	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	5.0	0.2	0.2	ug/L
CB82841	$8260GWR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	2900	100	280	280	ug/L
CB82841	$8260GWR	1,1,2,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CB82841	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.05	0.05	ug/L
CB82841	$8260GWR	1,2-Dichloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	1	1	ug/L
CB82841	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CB82841	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	680	70	1	1	ug/L
CB82841	$8260GWR	Dibromochloromethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	0.5	0.5	ug/L
CB82841	$8260GWR	Methylene chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	10	5	5	ug/L
CB82841	$8260GWR	Vinyl chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	2	2	ug/L
CB82841	$8260GWR	1,1,1,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	2.5	1	1	ug/L
CB82841	$8260GWR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	2900	100	210	210	ug/L

Monday, November 05, 2018
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GCB82836 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB82841	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR SWPC (ug/l) / APS Organics	ND	5.0	1.1	1.1	ug/L
CB82841	$8270-WMR	Benzo(ghi)perylene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.98	0.48	0.48	ug/L
CB82841	$8270-WMR	2-Methylnaphthalene	CT / RSR GWPC (ug/l) / APS Organics	130	49	28	28	ug/L
CB82841	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.98	0.1	0.1	ug/L
CB82841	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.98	0.1	0.1	ug/L
CB82841	$8270-WMR	Carbazole	CT / RSR GWPC (ug/l) / APS Organics	7.0	4.9	5	5	ug/L
CB82841	$8270-WMR	Dibenzofuran	CT / RSR GWPC (ug/l) / Semivolatiles	2.9	0.98	1	1	ug/L
CB82841	$8270-WMR	Benzo(k)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.98	0.5	0.5	ug/L
CB82841	$8270-WMR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	1900	250	280	280	ug/L
CB82841	$8270-WMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.98	0.2	0.2	ug/L
CB82841	$8270-WMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.98	0.08	0.08	ug/L
CB82841	$8270-WMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.98	0.06	0.06	ug/L
CB82841	$8270-WMR	2-Methylnaphthalene	CT / RSR SWPC (ug/l) / APS Organics	130	49	62	62	ug/L
CB82841	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / APS Organics	28	4.9	14	14	ug/L
CB82841	$8270-WMR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	1900	250	210	210	ug/L
CB82841	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.98	0.54	0.54	ug/L
CB82841	$8270-WMR	Hexachlorocyclopentadiene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.98	0.7	0.7	ug/L
CB82841	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.98	0.3	0.3	ug/L
CB82841	$8270-WMR	Chrysene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.98	0.54	0.54	ug/L
CB82841	$8270-WMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.98	0.3	0.3	ug/L
CB82841	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	28	4.9	0.077	0.077	ug/L
CB82841	$8270-WMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	21	4.9	0.3	0.3	ug/L
CB82841	$8270-WMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.98	0.3	0.3	ug/L
CB82841	$8270-WMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.98	0.3	0.3	ug/L
CB82841	$8270-WMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.98	0.3	0.3	ug/L
CB82841	$8270-WMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	2.9	0.98	0.077	0.077	ug/L
CB82841	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	2.8	0.068	0.5	0.5	mg/L
CB82841	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	2.8	0.068	0.25	0.25	mg/L
CB82841	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	2.8	0.068	0.25	0.25	mg/L
CB82842	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82842	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82842	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.104	0.001	0.05	0.05	mg/L
CB82842	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.159	0.001	0.1	0.1	mg/L
CB82843	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82843	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82844	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82844	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82845	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82845	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Monday, November 05, 2018
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GCB82836 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB82845	$8270-CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.55	0.05	0.3	0.3	ug/L
CB82845	$8270-CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.25	0.05	0.077	0.077	ug/L
CB82846	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82846	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82847	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82847	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82848	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82848	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82848	CR-WM	Chromium	CT / RSR GWPC (ug/l) / Inorganics	0.053	0.001	0.05	0.05	mg/L
CB82848	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.173	0.001	0.1	0.1	mg/L
CB82849	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82849	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82850	$8260GWR	Total Xylenes	CT / RSR GWPC (ug/l) / Volatiles	1070	20	530	530	ug/L
CB82850	$8260GWR	Total Xylenes	CT / RSR SWPC (ug/l) / APS Organics	1070	20	270	270	ug/L
CB82850	$8260GWR	Bromomethane	CT / RSR GWPC (ug/l) / APS Organics	ND	5.0	3.5	3.5	ug/L
CB82850	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	10	0.2	0.2	ug/L
CB82850	$8260GWR	Tetrahydrofuran (THF)	CT / RSR GWPC (ug/l) / APS Organics	ND	50	4	4	ug/L
CB82850	$8260GWR	2-Hexanone	CT / RSR GWPC (ug/l) / APS Organics	ND	40	35	35	ug/L
CB82850	$8260GWR	Isopropylbenzene	CT / RSR GWPC (ug/l) / APS Organics	36	20	25	25	ug/L
CB82850	$8260GWR	Bromodichloromethane	CT / RSR GWPC (ug/l) / APS Organics	ND	5.0	1	1	ug/L
CB82850	$8260GWR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	3400	200	280	280	ug/L
CB82850	$8260GWR	Toluene	CT / RSR GWPC (ug/l) / Volatiles	1300	200	1000	1000	ug/L
CB82850	$8260GWR	Vinyl chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	2	2	ug/L
CB82850	$8260GWR	Methylene chloride	CT / RSR GWPC (ug/l) / Volatiles	ND	20	5	5	ug/L
CB82850	$8260GWR	Ethylbenzene	CT / RSR GWPC (ug/l) / Volatiles	860	200	700	700	ug/L
CB82850	$8260GWR	1,1,2,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	0.5	0.5	ug/L
CB82850	$8260GWR	Dibromochloromethane	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	0.5	0.5	ug/L
CB82850	$8260GWR	1,1,1,2-Tetrachloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	1	1	ug/L
CB82850	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	0.05	0.05	ug/L
CB82850	$8260GWR	1,2-Dichloroethane	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	1	1	ug/L
CB82850	$8260GWR	Acrylonitrile	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	0.5	0.5	ug/L
CB82850	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	890	140	1	1	ug/L
CB82850	$8260GWR	Bromoform	CT / RSR GWPC (ug/l) / Volatiles	ND	5.0	4	4	ug/L
CB82850	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR SWPC (ug/l) / APS Organics	ND	10	1.1	1.1	ug/L
CB82850	$8260GWR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	3400	200	210	210	ug/L
CB82850	$8260GWR	Benzene	CT / RSR SWPC (ug/l) / Volatiles	890	140	710	710	ug/L
CB82850	$8270-WMR	Benzo(ghi)perylene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.99	0.48	0.48	ug/L
CB82850	$8270-WMR	2-Methylnaphthalene	CT / RSR GWPC (ug/l) / APS Organics	230	50	28	28	ug/L

Monday, November 05, 2018
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GCB82836 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB82850	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.99	0.1	0.1	ug/L
CB82850	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR GWPC (ug/l) / APS Organics	ND	0.99	0.1	0.1	ug/L
CB82850	$8270-WMR	Carbazole	CT / RSR GWPC (ug/l) / APS Organics	8.0	5.0	5	5	ug/L
CB82850	$8270-WMR	Dibenzofuran	CT / RSR GWPC (ug/l) / Semivolatiles	3.5	0.99	1	1	ug/L
CB82850	$8270-WMR	Benzo(k)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.99	0.5	0.5	ug/L
CB82850	$8270-WMR	Naphthalene	CT / RSR GWPC (ug/l) / Semivolatiles	3300	250	280	280	ug/L
CB82850	$8270-WMR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.99	0.08	0.08	ug/L
CB82850	$8270-WMR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.99	0.2	0.2	ug/L
CB82850	$8270-WMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	ND	0.99	0.06	0.06	ug/L
CB82850	$8270-WMR	2-Methylnaphthalene	CT / RSR SWPC (ug/l) / APS Organics	230	50	62	62	ug/L
CB82850	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / APS Organics	30	5.0	14	14	ug/L
CB82850	$8270-WMR	Naphthalene	CT / RSR SWPC (ug/l) / APS Organics	3300	250	210	210	ug/L
CB82850	$8270-WMR	Indeno(1,2,3-cd)pyrene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.99	0.54	0.54	ug/L
CB82850	$8270-WMR	Hexachlorocyclopentadiene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.99	0.7	0.7	ug/L
CB82850	$8270-WMR	Dibenz(a,h)anthracene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.99	0.3	0.3	ug/L
CB82850	$8270-WMR	Chrysene	CT / RSR SWPC (ug/l) / APS Organics	ND	0.99	0.54	0.54	ug/L
CB82850	$8270-WMR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.99	0.3	0.3	ug/L
CB82850	$8270-WMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	30	5.0	0.077	0.077	ug/L
CB82850	$8270-WMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	20	5.0	0.3	0.3	ug/L
CB82850	$8270-WMR	Benz(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.99	0.3	0.3	ug/L
CB82850	$8270-WMR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.99	0.3	0.3	ug/L
CB82850	$8270-WMR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	ND	0.99	0.3	0.3	ug/L
CB82850	$8270-WMR	Dibenzofuran	CT / RSR SWPC (ug/l) / Semivolatiles	3.5	0.99	0.077	0.077	ug/L
CB82850	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	3.2	0.069	0.5	0.5	mg/L
CB82850	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	3.2	0.069	0.25	0.25	mg/L
CB82850	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	3.2	0.069	0.25	0.25	mg/L
CB82851	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82851	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB82852	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB82852	$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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

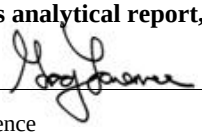
Laboratory Sample ID(s): CB82836-CB82852 ***Sampling Date(s):*** 10/24/2018

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, 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 05, 2018

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

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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 05, 2018

SDG I.D.: GCB82836

SDG Comments

Volatile 8260 analysis:
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.
Lab Sample ID CB82841 and CB82850
Due to the concentration of target and non-target analytes not all of the requested criteria could be achieved. Please refer to the Sample Criteria Exceedances section of this report.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 10/31/18-1 Dustin Harrison, Greg Danielewski, Chemist 10/31/18

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850

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 11/01/18-1 Dustin Harrison, Greg Danielewski, Chemist 11/01/18

CB82851

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 454189 (CB82836)

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850

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

Batch 454364 (CB82851)

CB82851

All LCS recoveries were within 90 - 110 with the following exceptions: None.
All MS recoveries were within 90 - 110 with the following exceptions: None.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

Cyanide Narration

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 10/29/18-1 Jeff Bucko, Chemist 10/29/18

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

The initial calibration (ETPH919I) 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 453741 (CB82836)

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

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 10/29/18 08:16 Rick Schweitzer, Chemist 10/29/18

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

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 453882 (CB83200)

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

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-

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Certification Report

November 05, 2018

SDG I.D.: GCB82836

Mercury Narration

125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 10/27/18 13:09 Cindy Pearce, Emily Kolominskaya, Chemist 10/27/18

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

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 453757 (CB82080)

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

All LCS recoveries were within 75 - 125 with the following exceptions: None.

ICPMS Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ICPMS 10/30/18 17:39 Cindy Pearce, Chemist 10/30/18

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

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 samples did not meet internal standard criteria: None.

QC (Batch Specific):

Batch 453844 (CB82087)

CB82836, CB82837, CB82838, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

All LCS recoveries were within 75 - 125 with the following exceptions: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 453740 (Samples: CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851): -----

The LCS/LCSD recovery is below the lower range, but within the method criteria. A low bias of these analytes is possible. (Hexachlorocyclopentadiene, Pyridine)

The LCS and/or the LCSD recovery is below the lower range but within the method criteria. The other QC is acceptable. A slight low bias is possible. (2,4-Dinitrophenol, N-Nitrosodimethylamine)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes and two of the surrogates. These analytes were not reported in the sample(s). A slight variability is possible. (1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4-Dinitrophenol, 2-Chlorophenol, 4,6-Dinitro-2-methylphenol, Benzidine, Bis(2-chloroethyl)ether, Bis(2-chloroisopropyl)ether, Hexachlorobutadiene, Hexachloroethane, N-Nitrosodimethylamine, Phenol, Pyridine, % 2-Fluorophenol, % Phenol-d5)

QC Batch 454143 (Samples: CB82838): -----

The LCS recovery is below the method criteria. The LCSDS is acceptable. A low bias 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. (3,3''-Dichlorobenzidine, Benzoic acid)

Instrument:

CHEM04 10/30/18-1 Wes Bryon, Chemist 10/30/18

CB82839, CB82840, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM04/4_SPLIT_1022):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%), 4,6-Dinitro-2-methylphenol 29% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.057 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/1030_03-4_SPLIT_1022):
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: 2-Nitrophenol 0.073 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM04 10/31/18-1 Wes Bryon, Chemist 10/31/18

CB82837, CB82851

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOA Narration

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM04/4_SPLIT_1022):
97% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 26% (20%), 4,6-Dinitro-2-methylphenol 29% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.057 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/1031_03-4_SPLIT_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: 2-Nitrophenol 0.073 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM06 10/29/18-1 Wes Bryon, Chemist 10/29/18

CB82836

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/6_SPLIT_1009):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: 2-Nitroaniline 24% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.076 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1029_03-6_SPLIT_1009):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.075 (0.1)
The following compounds did not meet minimum response factors: None.

CHEM06 11/02/18-1 Wes Bryon, Chemist 11/02/18

CB82838

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM06/6_SPLIT_1101):
97% 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 0.097 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1102_03-6_SPLIT_1101):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOA 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.

CHEM07 10/30/18-1 Wes Bryon, Chemist 10/30/18

CB82841, CB82850

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM07/7_SPLIT_1017):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol 28% (20%), 4,6-Dinitro-2-methylphenol 22% (20%), Benzoic acid 22% (20%), Hexachlorocyclopentadiene 22% (20%), Pentachlorophenol 28% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.093 (0.1), Hexachlorobenzene 0.074 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1030_03-7_SPLIT_1017):
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: Benzoic acid 32%H (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.093 (0.1), Hexachlorobenzene 0.069 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 453740 (CB83214)

CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(15%), Hexachlorocyclopentadiene(18%), Pyridine(18%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(24%), N-Nitrosodimethylamine(23%), Pyridine(17%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % 2-Fluorophenol(38.6%), 1,2-Dichlorobenzene(25.0%), 1,3-Dichlorobenzene(33.8%), 1,4-Dichlorobenzene(30.0%), 2,4-Dinitrophenol(110.4%), 3,3'-Dichlorobenzidine(27.6%), 4,6-Dinitro-2-methylphenol(70.6%), 4-Chloroaniline(28.6%), Benzidine(66.7%), Benzo(ghi)perylene(21.9%), Dibenz(a,h)anthracene(20.9%), Hexachlorocyclopentadiene(28.6%), Hexachloroethane(31.6%), N-Nitrosodimethylamine(29.6%)
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 454143 (CB82838)

CB82838

All LCS recoveries were within 30 - 130 with the following exceptions: Benzidine(<10%)
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: 3,3'-Dichlorobenzidine(27.5%), Benzoic acid(56.8%)

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOA 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%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 453740 (Samples: CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851): -----

The LCSD recovery is below the lower range but within the method criteria. The LCS recovery is acceptable. A slight low bias is possible. (Hexachloroethane, Pyridine)

The LCS/LCSD RPD exceeds the method criteria for one analyte and one surrogate. This analyte was not reported in the sample(s). No significant variability is suspected. (Hexachloroethane, % 2-Fluorophenol)

QC Batch 454143 (Samples: CB82838): -----

The LCS/LCSD recovery for one analyte is below the lower range but within the method criteria. A slight low bias for this analyte is possible. (Hexachlorocyclopentadiene)

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-Methylnaphthalene, Pyridine)

Instrument:

CHEM27 10/29/18-1 Harry Mullin, Chemist 10/29/18

CB82836, CB82837, CB82839, CB82840, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/27_SIM_1026):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Hexachloroethane 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 (CHEM27/1029_03-27_SIM_1026):
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 10/30/18-1 Harry Mullin, Chemist 10/30/18

CB82851

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOASIM Narration

Initial Calibration Verification (CHEM27/27_SIM_1026):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Hexachloroethane 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 (CHEM27/1030_07-27_SIM_1026):
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: Bis(2-ethylhexyl)phthalate 34%H (30%), Pentachlorophenol 48%H (30%)
The following compounds did not meet maximum % deviations: Pentachlorophenol 48%H (40%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM27 11/01/18-2 Harry Mullin, Chemist 11/01/18

CB82838

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/27_SIM_1026):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Hexachloroethane 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 (CHEM27/1101_19-27_SIM_1026):
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 453740 (CB83214)

CB82836, CB82837, CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845, CB82846, CB82847, CB82848, CB82849, CB82850, CB82851

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: Hexachloroethane(27%), Pyridine(29%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % 2-Fluorophenol(33.3%), Hexachloroethane(25.8%)
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 454143 (CB82838)

CB82838

All LCS recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(28%)
All LCSD recoveries were within 30 - 130 with the following exceptions: Hexachlorocyclopentadiene(29%)

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

SVOASIM Narration

All LCS/LCSD RPDs were less than 20% with the following exceptions: 2-Methylnaphthalene(26.3%), Pyridine(24.0%)
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%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 454275 (Samples: CB82836, CB82837, CB82838, CB82839, CB82852): -----

The LCS recovery is below the lower range but within the method criteria. The LCSD recovery is acceptable. No significant bias is suspected. (Tetrahydrofuran (THF))

QC Batch 454467 (Samples: CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845): -----

The LCSD recovery is below the lower range but within the method criteria. The LCS recovery is acceptable. A slight low bias is possible. (4-Methyl-2-pentanone, Acetone, Chloromethane, Dichlorodifluoromethane, Tetrahydrofuran (THF))

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. (Dichlorodifluoromethane)

Instrument:

CHEM15 10/30/18-2 Harry Mullin, Chemist 10/30/18

CB82846, CB82847, CB82848, CB82849, CB82850

Initial Calibration Verification (CHEM15/VOA15-102918):
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 (CHEM15/1030B27-VOA15-102918):
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.

CHEM15 10/31/18-1 Harry Mullin, Chemist 10/31/18

CB82850, CB82851

Initial Calibration Verification (CHEM15/VOA15-102918):
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 (CHEM15/1031B04-VOA15-102918):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

VOA Narration

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.

CHEM17 10/30/18-2 Michael Hahn, Chemist 10/30/18

CB82836, CB82837, CB82838, CB82839, CB82852

Initial Calibration Verification (CHEM17/VT-S1029):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Tetrahydrofuran (THF) 24% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.040 (0.05), 2-Hexanone 0.075 (0.1), Acetone 0.037 (0.1), Bromoform 0.083 (0.1), Methyl ethyl ketone 0.055 (0.1), Tetrahydrofuran (THF) 0.041 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1030_25-VT-S1029):
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: Bromomethane 36%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.039 (0.05), Acrylonitrile 0.046 (0.05), Bromoform 0.074 (0.1), Tetrahydrofuran (THF) 0.033 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM17 10/31/18-1 Michael Hahn, Chemist 10/31/18

CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845

Initial Calibration Verification (CHEM17/VT-S1029):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Tetrahydrofuran (THF) 24% (20%)
The following compounds did not meet recommended response factors: Methyl ethyl ketone 0.055 (0.1), Tetrahydrofuran (THF) 0.041 (0.05), 1,2-Dibromo-3-chloropropane 0.040 (0.05), 2-Hexanone 0.075 (0.1), Acetone 0.037 (0.1), Bromoform 0.083 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/1031_02-VT-S1029):
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: Tetrahydrofuran (THF) 0.034 (0.05), 1,2-Dibromo-3-chloropropane 0.040 (0.05), Acrylonitrile 0.049 (0.05), Bromoform 0.076 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 454231 (CB83890)

CB82846, CB82847, CB82848, CB82849, CB82850

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.

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RCP Certification Report

November 05, 2018

SDG I.D.: GCB82836

VOA Narration

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Batch 454275 (CB82540)

CB82836, CB82837, CB82838, CB82839, CB82852

All LCS recoveries were within 70 - 130 with the following exceptions: Tetrahydrofuran (THF)(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.
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%.

Batch 454436 (CB84412)

CB82850, CB82851

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%.

Batch 454467 (CB83044)

CB82839, CB82840, CB82841, CB82842, CB82843, CB82844, CB82845

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: 4-Methyl-2-pentanone(67%), Acetone(62%), Chloromethane(62%), Dichlorodifluoromethane(55%), Tetrahydrofuran (THF)(64%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: Dichlorodifluoromethane(32.1%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 3.6C with cooling initiated.
(Note acceptance criteria for relevant matrices 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 — Temp: 2.1°C — Pg 1 of 2

Customer: Tighe & Bond
Address: 213 Court Street, Middletown, CT 06457

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Tighe & Bond
QUOTE # TI012517BA

Project P.O: 14-0755-44B

Data Delivery/Contact Options:
Fax:
Phone:
Email: LEWilley@TigheBond.com

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Date:

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
828536	MW-45R	GW	10/24/2018	9:26
828537	MW-25S	GW	10/24/2018	10:44
828538	MW-10BR	GW	10/24/2018	11:34
828539	MW-30S	GW	10/24/2018	12:26
828540	MW-3BR	GW	10/24/2018	14:03
828541	MW-18D	GW	10/24/2018	14:30
828542	MW-13S	GW	10/24/2018	16:05
828543	MW-26S	GW	10/25/2018	8:35
828544	MW-28S	GW	10/25/2018	9:10
828545	MW-26D	GW	10/25/2018	10:20
828546	MW-27S	GW	10/25/2018	11:40
828547	MW-26BR	GW	10/25/2018	11:42

Analysis Request

VOCs	ETPH	8260 Metals	Total Cyanide	Cl. Amber 8 oz. w/HCl/DI	Soil VOA Vials [ ] Methanol [ ] H2O	Cl. Soil Container [ ] 1oz	40 ml VOA Vial [ ] As is [ ] HCl	Cl. Amber 1000ml [ ] As is [ ] HCl	PL HCl 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml [ ] 500ml [ ] 1000ml	PL NaOH 250ml	25 Gram Encore	Bacteria Bottle as is
X	X	X	X										
X	X	X	X										
X	X	X	X										
X	X	X	X										
X	X	X	X										
X	X	X	X										
X	X	X	X										
X	X	X	X										
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Relinquished by: **Date:** **Time:** **Accepted by:**

Comments, Special Requirements or Regulations:

DAS Pricing Quote: TI012517BA

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

State where samples were collected:

Data Format: Excel / PDF / GIS/Key / EQuIS / Other (geotech)

Data Package: Tier II Checklist / Full Data Package* / Phoenix Std Report / Other

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: 3.1°C
Pg 2 of 2

Customer: Tighe & Bond
Address: 213 Court Street
Middletown, CT 06457

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Tighe & Bond
QUOTE # TI012517BA

Project P.O: 14-0755-44B

Data Delivery/Contact Options:
Fax:
Phone:
Email: LEWilley@TigheBond.com

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature: [illegible] Date: 10/25/18

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid WI=Wipe OIL=Oil B=Bulk L=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	SVOCs	RSR Metals	Total Cyanide	Cl Amber 8 oz. WP-HCl-PO4	Soil VOA Vials 1 Methanol 1 H2O	Gl. Soil Container 1 H2O 1 oz	Gl. Soil Container 1 oz	Gl. Amber 16oz 1 As is 1 X-As is 1 HCl	Pl. As is 125ml 1 As is 1 HNO3	Pl. HNO3 500ml 1 500ml 1 100ml	Pl. H2SO4 125ml 1 250ml 1 500ml 1 100ml	Pl. NaOH 250ml	25 Gram Encore	Bacteria Bottle as is
838546	MW-13D	GW	10/25/2018	13:37	X	X	X	X	X			3	3			1	1			
838547	MW-7D	GW	10/25/2018	14:10	X	X	X	X	X			3	3			1	1			
838550	MW-DUP	GW	10/25/2018	14:30	X	X	X	X	X			3	3			1	1			
838551	EQ-Blank	GW	10/24/2018	15:00	X	X	X	X	X			3	3			1	1			
838552	Trip Blank	-	-	-	X	X	X	X	X			2								
					X	X	X	X	X											
					X	X	X	X	X											
					X	X	X	X	X											
					X	X	X	X	X											
					X	X	X	X	X											

Relinquished by: Date: 10/25/18 Time: 11:30
Accepted by: Date: 10/26/18 Time: 12:46

CT: RCP Cert, GW Protection, SW Protection, GA Mobility, GB Mobility, Residential DEC, I/C DEC, Other
RI: Direct Exposure (Residential), GW, 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

Turnaround: 1 Day*, 2 Days*, 3 Days*, Standard, Other

Comments, Special Requirements or Regulations:
DAS Pricing Quote: TI012517BA

State where samples [illegible]

PHOENIX
Environmental Laboratories, Inc.

Monday, November 19, 2018

Attn: Lynn Willey
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: ROCKVILLE MGP
Sample ID#s: CB96386 - CB96391, CB96501

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

SDG Comments

November 19, 2018

SDG I.D.: GCB96386

Volatile 8260 analysis:
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 19, 2018

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:	WC	11/12/18	12:35
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96386

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	11/14/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/18	CPP	SW6010C
Barium	0.209	0.002	mg/L	1	11/14/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/18	CPP	SW6010C
Chromium	0.009	0.001	mg/L	1	11/14/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/14/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/18	RS	SW7470A
Nickel	0.138	0.001	mg/L	1	11/14/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/14/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	11/16/18	MGH	SW6020B
Vanadium	0.003	0.002	mg/L	1	11/14/18	CPP	SW6010C
Zinc	0.007	0.004	mg/L	1	11/14/18	CPP	SW6010C
Total Cyanide	< 0.010	0.010	mg/L	1	11/16/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/13/18	P/D/R	SW3510C/SW3520C
Mercury Digestion	Completed				11/14/18	D/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
Total Metals Digestion	Completed				11/13/18	AG	
Total Metals Digestion MS	Completed				11/15/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.32	0.068	mg/L	1	11/14/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/14/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	77		%	1	11/14/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CB96386

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1,1-Trichloroethane	1.2	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,4-Trimethylbenzene	5.2	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Acetone	ND	25	ug/L	1	11/14/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Benzene	40	7.0	ug/L	10	11/14/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Ethylbenzene	3.2	1.0	ug/L	1	11/14/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
Isopropylbenzene	3.4	1.0	ug/L	1	11/14/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CB96386

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	4.8	1.0	ug/L	1	11/14/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Naphthalene	150	10	ug/L	10	11/14/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
o-Xylene	14	1.0	ug/L	1	11/14/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/14/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Total Xylenes	18.8	1.0	ug/L	1	11/14/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/14/18	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	11/14/18	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	11/14/18	MH	70 - 130 %
% Toluene-d8	97		%	1	11/14/18	MH	70 - 130 %
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	5.0	0.09	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthene	7.7	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthylene	0.42	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Anthracene	0.33	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluoranthene	0.20	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluorene	2.2	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Naphthalene	92	0.09	ug/L	1	11/15/18	AW	SW8270D (SIM)
Phenanthrene	1.2	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Pyrene	0.25	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	49		%	1	11/14/18	AW	30 - 130 %
% Nitrobenzene-d5	34		%	1	11/14/18	AW	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14D

Phoenix I.D.: CB96386

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	69		%	1	11/14/18	AW	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:

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 19, 2018
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 19, 2018

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:	WC	11/12/18	10:25
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96387

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	11/14/18	CPP	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	11/14/18	CPP	SW6010C
Barium	0.283	0.002	mg/L	1	11/14/18	CPP	SW6010C
Beryllium	< 0.001	0.001	mg/L	1	11/14/18	CPP	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	11/14/18	CPP	SW6010C
Chromium	0.014	0.001	mg/L	1	11/14/18	CPP	SW6010C
Copper	< 0.005	0.005	mg/L	1	11/14/18	CPP	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	11/14/18	RS	SW7470A
Nickel	0.244	0.001	mg/L	1	11/14/18	CPP	SW6010C
Lead	< 0.002	0.002	mg/L	1	11/14/18	CPP	SW6010C
Antimony	< 0.005	0.005	mg/L	1	11/14/18	CPP	SW6010C
Selenium	< 0.010	0.010	mg/L	1	11/14/18	CPP	SW6010C
Thallium	< 0.0005	0.0005	mg/L	5	11/16/18	MGH	SW6020B
Vanadium	0.002	0.002	mg/L	1	11/14/18	CPP	SW6010C
Zinc	0.018	0.004	mg/L	1	11/14/18	CPP	SW6010C
Total Cyanide	0.014	0.010	mg/L	1	11/16/18	O/GD	SW9010C/SW9012B
Extraction of CT ETPH	Completed				11/13/18	P/D/R	SW3510C/SW3520C
Mercury Digestion	Completed				11/14/18	D/W	SW7470A
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
Total Metals Digestion	Completed				11/13/18	AG	
Total Metals Digestion MS	Completed				11/15/18	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	11/14/18	JRB	CTETPH 8015D
Identification	ND		mg/L	1	11/14/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	11/14/18	JRB	50 - 150 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CB96387

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/14/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Acetone	ND	25	ug/L	1	11/14/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/14/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/14/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CB96387

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/14/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/14/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/14/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/14/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/14/18	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	11/14/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	11/14/18	MH	70 - 130 %
% Toluene-d8	99		%	1	11/14/18	MH	70 - 130 %
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	ND	0.10	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	52		%	1	11/14/18	KCA	30 - 130 %
% Nitrobenzene-d5	44		%	1	11/14/18	KCA	30 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: MW-14S

Phoenix I.D.: CB96387

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	64		%	1	11/14/18	KCA	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:

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.

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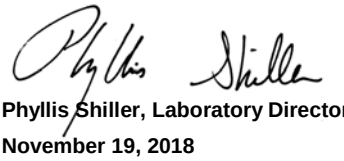

Phyllis Shiller, Laboratory Director

November 19, 2018

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 19, 2018

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:	WC	11/12/18	14:55
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96388

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	ND	0.09	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthene	0.39	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthylene	1.2	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluoranthene	ND	0.28	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluorene	0.81	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Naphthalene	0.24	0.09	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Phenanthrene	0.28	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Pyrene	ND	0.28	ug/L	1	11/14/18	KCA	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	55		%	1	11/14/18	KCA	30 - 130 %
% Nitrobenzene-d5	46		%	1	11/14/18	KCA	30 - 130 %
% Terphenyl-d14	68		%	1	11/14/18	KCA	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: MW-26D

Phoenix I.D.: CB96388

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:

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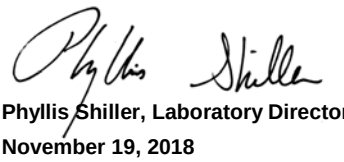

Phyllis Shiller, Laboratory Director
November 19, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 19, 2018

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:	WC	11/12/18	14:55
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96389

Project ID: ROCKVILLE MGP
Client ID: MW-26D FILTERED

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	ND	0.09	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthene	ND	0.09	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Acenaphthylene	ND	0.19	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Naphthalene	ND	0.09	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	11/14/18	KCA	SW8270D (SIM)
QA/QC Surrogates							
% 2-Fluorobiphenyl	53		%	1	11/14/18	KCA	30 - 130 %
% Nitrobenzene-d5	41		%	1	11/14/18	KCA	30 - 130 %
% Terphenyl-d14	61		%	1	11/14/18	KCA	30 - 130 %

Project ID: ROCKVILLE MGP
Client ID: MW-26D FILTERED

Phoenix I.D.: CB96389

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:

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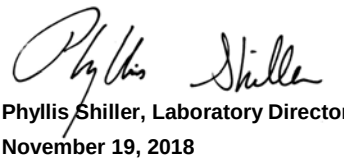

Phyllis Shiller, Laboratory Director
November 19, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 19, 2018

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:	WC	11/12/18	16:20
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96390

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				11/13/18	P/D/R	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.64	0.069	mg/L	1	11/14/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/14/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	11/14/18	JRB	50 - 150 %
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	1.0	0.10	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthene	3.3	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthylene	0.74	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Anthracene	0.96	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benz(a)anthracene	0.08	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Chrysene	0.10	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluoranthene	0.67	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluorene	3.2	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Naphthalene	70	0.10	ug/L	1	11/15/18	AW	SW8270D (SIM)
Phenanthrene	0.84	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Pyrene	0.52	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
QA/QC Surrogates							

Project ID: ROCKVILLE MGP
Client ID: MW-30S

Phoenix I.D.: CB96390

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorobiphenyl	51		%	1	11/14/18	AW	30 - 130 %
% Nitrobenzene-d5	37		%	1	11/14/18	AW	30 - 130 %
% Terphenyl-d14	56		%	1	11/14/18	AW	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:

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.

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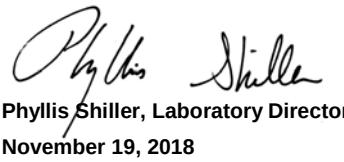

Phyllis Shiller, Laboratory Director
November 19, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

November 19, 2018

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:	WC	11/12/18	16:20
Location Code:	TIGHE-DAS	Received by:	CP	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96391

Project ID: ROCKVILLE MGP
Client ID: MW-30S FILTERED

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				11/13/18	P/D/R	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				11/13/18	P/D/R	SW3520C
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	0.50	0.067	mg/L	1	11/14/18	JRB	CTETPH 8015D
Identification	**		mg/L	1	11/14/18	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	63		%	1	11/14/18	JRB	50 - 150 %
Semivolatiles by SIM, PAH							
2-Methylnaphthalene	0.45	0.09	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthene	2.4	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Acenaphthylene	1.7	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Anthracene	0.52	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluoranthene	0.27	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Fluorene	1.1	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Naphthalene	49	0.09	ug/L	1	11/15/18	AW	SW8270D (SIM)
Phenanthrene	0.37	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
Pyrene	0.39	0.05	ug/L	1	11/14/18	AW	SW8270D (SIM)
QA/QC Surrogates							

Project ID: ROCKVILLE MGP
Client ID: MW-30S FILTERED

Phoenix I.D.: CB96391

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorobiphenyl	53		%	1	11/14/18	AW	30 - 130 %
% Nitrobenzene-d5	39		%	1	11/14/18	AW	30 - 130 %
% Terphenyl-d14	68		%	1	11/14/18	AW	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:

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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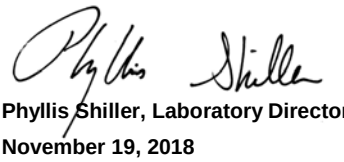

Phyllis Shiller, Laboratory Director
November 19, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 19, 2018

FOR: Attn: Ms. Lynn Wiley
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:	WC	11/12/18	
Location Code:	TIGHE-DAS	Received by:	LB	11/13/18	11:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14-0755-44B				

Laboratory Data

SDG ID: GCB96386
Phoenix ID: CB96501

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	11/13/18	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/13/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/13/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	11/13/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/13/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/13/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/13/18	MH	SW8260C

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CB96501

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	11/13/18	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	11/13/18	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/13/18	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/13/18	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/13/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/13/18	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/13/18	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/13/18	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/13/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/13/18	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/13/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/13/18	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/13/18	MH	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	11/13/18	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/13/18	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	11/13/18	MH	70 - 130 %

Ver 1

Project ID: ROCKVILLE MGP
Client ID: TRIP BLANK

Phoenix I.D.: CB96501

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	1	11/13/18	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.
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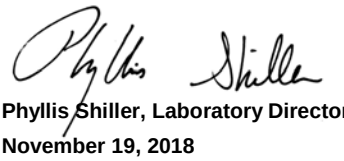

Phyllis Shiller, Laboratory Director
November 19, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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 19, 2018

QA/QC Data

SDG I.D.: GCB96386

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 456228 (mg/L), QC Sample No: CB96387 (CB96386, CB96387)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	99.0			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 456186 (mg/L), QC Sample No: CB96754 (CB96386, CB96387)													
ICP Metals - Aqueous													
Antimony	BRL	0.005	<0.005	<0.005	NC	104			103			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.6			97.8			75 - 125	20
Barium	BRL	0.002	<0.002	<0.002	NC	101			99.6			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	100			98.4			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	98.7			97.9			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	99.6			98.7			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	102			101			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	99.8			99.0			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	99.0			98.6			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	94.7			93.3			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	97.9			98.1			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	100			99.6			75 - 125	20
Zinc	BRL	0.004	0.023	0.022	4.40	97.3			96.7			75 - 125	20
QA/QC Batch 456474 (mg/L), QC Sample No: CB96386 5X (CB96386, CB96387)													
ICP MS Metals - Aqueous													
Thallium	BRL	0.0005	<0.0005	<0.0005	NC	98.6			100			75 - 125	20

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QA/QC Report

November 19, 2018

QA/QC Data

SDG I.D.: GCB96386

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 456521 (mg/L), QC Sample No: CB91971 (CB96386, CB96387)													
Total Cyanide	BRL	0.010	<0.010	<0.010	NC	92.7			102			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 19, 2018

QA/QC Data

SDG I.D.: GCB96386

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 456159 (mg/L), QC Sample No: CB96386 (CB96386, CB96387, CB96390, CB96391)											
TPH by GC (Extractable Products) - Ground Water											
Ext. Petroleum H.C. (C9-C36)	ND	0.10	94	95	1.1				60 - 120	30	
% n-Pentacosane	79	%	80	80	0.0				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 456158 (ug/L), QC Sample No: CB96386 (CB96386, CB96387, CB96388, CB96389, CB96390, CB96391)											
Semivolatiles by SIM, PAH - Ground Water											
2-Methylnaphthalene	ND	0.05	31	32	3.2				30 - 130	20	
Acenaphthene	ND	0.05	56	52	7.4				30 - 130	20	
Acenaphthylene	ND	0.04	48	44	8.7				30 - 130	20	
Anthracene	ND	0.02	64	62	3.2				30 - 130	20	
Benz(a)anthracene	ND	0.02	72	67	7.2				30 - 130	20	
Benzo(a)pyrene	ND	0.02	72	68	5.7				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	73	70	4.2				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	62	59	5.0				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	65	64	1.6				30 - 130	20	
Chrysene	ND	0.02	68	65	4.5				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.02	77	74	4.0				30 - 130	20	
Fluoranthene	ND	0.04	65	63	3.1				30 - 130	20	
Fluorene	ND	0.05	59	56	5.2				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	74	71	4.1				30 - 130	20	
Naphthalene	ND	0.05	30	30	0.0				30 - 130	20	
Phenanthrene	ND	0.05	63	60	4.9				30 - 130	20	
Pyrene	ND	0.02	68	65	4.5				30 - 130	20	
% 2-Fluorobiphenyl	40	%	45	43	4.5				30 - 130	20	
% Nitrobenzene-d5	22	%	30	28	6.9				30 - 130	20	l,s
% Terphenyl-d14	69	%	71	71	0.0				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 456620 (ug/L), QC Sample No: CB96297 (CB96386 (10X) , CB96387)											
Volatiles - Ground Water											
1,1,1,2-Tetrachloroethane	ND	1.0	100	102	2.0				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	123	127	3.2				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	102	105	2.9				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	97	95	2.1				70 - 130	30	
1,1-Dichloroethane	ND	1.0	110	113	2.7				70 - 130	30	
1,1-Dichloroethene	ND	1.0	115	117	1.7				70 - 130	30	
1,1-Dichloropropene	ND	1.0	119	123	3.3				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	105	100	4.9				70 - 130	30	

QA/QC Data

SDG I.D.: GCB96386

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	1.0	103	109	5.7				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	97	97	0.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	105	111	5.6				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	90	93	3.3				70 - 130	30
1,2-Dibromoethane	ND	1.0	99	99	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	100	101	1.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	112	111	0.9				70 - 130	30
1,2-Dichloropropane	ND	1.0	101	102	1.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	107	114	6.3				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	101	105	3.9				70 - 130	30
1,3-Dichloropropane	ND	1.0	103	104	1.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	100	104	3.9				70 - 130	30
2,2-Dichloropropane	ND	1.0	141	143	1.4				70 - 130	30
2-Chlorotoluene	ND	1.0	103	109	5.7				70 - 130	30
2-Hexanone	ND	5.0	81	76	6.4				70 - 130	30
2-Isopropyltoluene	ND	1.0	103	110	6.6				70 - 130	30
4-Chlorotoluene	ND	1.0	103	108	4.7				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	88	85	3.5				70 - 130	30
Acetone	ND	5.0	95	92	3.2				70 - 130	30
Acrylonitrile	ND	5.0	94	92	2.2				70 - 130	30
Benzene	ND	0.70	103	106	2.9				70 - 130	30
Bromobenzene	ND	1.0	100	104	3.9				70 - 130	30
Bromochloromethane	ND	1.0	100	103	3.0				70 - 130	30
Bromodichloromethane	ND	0.50	102	104	1.9				70 - 130	30
Bromoform	ND	1.0	95	94	1.1				70 - 130	30
Bromomethane	ND	1.0	111	114	2.7				70 - 130	30
Carbon Disulfide	ND	1.0	102	104	1.9				70 - 130	30
Carbon tetrachloride	ND	1.0	121	126	4.0				70 - 130	30
Chlorobenzene	ND	1.0	100	103	3.0				70 - 130	30
Chloroethane	ND	1.0	104	107	2.8				70 - 130	30
Chloroform	ND	1.0	106	106	0.0				70 - 130	30
Chloromethane	ND	1.0	105	108	2.8				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	108	111	2.7				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	104	104	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	97	97	0.0				70 - 130	30
Dibromomethane	ND	1.0	94	91	3.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	165	168	1.8				70 - 130	30
Ethylbenzene	ND	1.0	103	107	3.8				70 - 130	30
Hexachlorobutadiene	ND	0.40	109	114	4.5				70 - 130	30
Isopropylbenzene	ND	1.0	108	114	5.4				70 - 130	30
m&p-Xylene	ND	1.0	103	109	5.7				70 - 130	30
Methyl ethyl ketone	ND	5.0	93	90	3.3				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	103	102	1.0				70 - 130	30
Methylene chloride	ND	1.0	105	107	1.9				70 - 130	30
Naphthalene	ND	1.0	103	102	1.0				70 - 130	30
n-Butylbenzene	ND	1.0	116	124	6.7				70 - 130	30
n-Propylbenzene	ND	1.0	108	115	6.3				70 - 130	30
o-Xylene	ND	1.0	99	104	4.9				70 - 130	30
p-Isopropyltoluene	ND	1.0	109	117	7.1				70 - 130	30
sec-Butylbenzene	ND	1.0	116	125	7.5				70 - 130	30
Styrene	ND	1.0	100	102	2.0				70 - 130	30
tert-Butylbenzene	ND	1.0	107	115	7.2				70 - 130	30
Tetrachloroethene	ND	1.0	100	105	4.9				70 - 130	30

QA/QC Data

SDG I.D.: GCB96386

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Tetrahydrofuran (THF)	ND	2.5	93	91	2.2				70 - 130	30	
Toluene	ND	1.0	101	105	3.9				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	115	118	2.6				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	99	101	2.0				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	103	105	1.9				70 - 130	30	
Trichloroethene	ND	1.0	104	107	2.8				70 - 130	30	
Trichlorofluoromethane	ND	1.0	132	136	3.0				70 - 130	30	I
Trichlorotrifluoroethane	ND	1.0	112	114	1.8				70 - 130	30	
Vinyl chloride	ND	1.0	120	124	3.3				70 - 130	30	
% 1,2-dichlorobenzene-d4	97	%	99	97	2.0				70 - 130	30	
% Bromofluorobenzene	99	%	103	101	2.0				70 - 130	30	
% Dibromofluoromethane	89	%	94	90	4.3				70 - 130	30	
% Toluene-d8	98	%	99	99	0.0				70 - 130	30	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 456271 (ug/L), QC Sample No: CB96501 (CB96386, CB96501)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	96	114	17.1				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	110	129	15.9				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	92	112	19.6				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	91	106	15.2				70 - 130	30	
1,1-Dichloroethane	ND	1.0	98	117	17.7				70 - 130	30	
1,1-Dichloroethene	ND	1.0	96	112	15.4				70 - 130	30	
1,1-Dichloropropene	ND	1.0	108	125	14.6				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	100	114	13.1				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	97	118	19.5				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	92	107	15.1				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	100	117	15.7				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	88	106	18.6				70 - 130	30	
1,2-Dibromoethane	ND	1.0	94	110	15.7				70 - 130	30	
1,2-Dichlorobenzene	ND	1.0	94	111	16.6				70 - 130	30	
1,2-Dichloroethane	ND	1.0	103	120	15.2				70 - 130	30	
1,2-Dichloropropane	ND	1.0	93	109	15.8				70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	101	119	16.4				70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	97	113	15.2				70 - 130	30	
1,3-Dichloropropane	ND	1.0	96	113	16.3				70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	96	112	15.4				70 - 130	30	
2,2-Dichloropropane	ND	1.0	118	139	16.3				70 - 130	30	I
2-Chlorotoluene	ND	1.0	100	115	14.0				70 - 130	30	
2-Hexanone	ND	5.0	74	91	20.6				70 - 130	30	
2-Isopropyltoluene	ND	1.0	98	115	16.0				70 - 130	30	
4-Chlorotoluene	ND	1.0	98	115	16.0				70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	80	93	15.0				70 - 130	30	
Acetone	ND	5.0	78	95	19.7				70 - 130	30	
Acrylonitrile	ND	5.0	80	100	22.2				70 - 130	30	
Benzene	ND	0.70	95	113	17.3				70 - 130	30	
Bromobenzene	ND	1.0	97	114	16.1				70 - 130	30	
Bromochloromethane	ND	1.0	92	111	18.7				70 - 130	30	
Bromodichloromethane	ND	0.50	97	115	17.0				70 - 130	30	
Bromoform	ND	1.0	91	109	18.0				70 - 130	30	
Bromomethane	ND	1.0	97	114	16.1				70 - 130	30	

QA/QC Data

SDG I.D.: GCB96386

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	1.0	86	102	17.0				70 - 130	30	
Carbon tetrachloride	ND	1.0	106	128	18.8				70 - 130	30	
Chlorobenzene	ND	1.0	95	112	16.4				70 - 130	30	
Chloroethane	ND	1.0	90	108	18.2				70 - 130	30	
Chloroform	ND	1.0	93	114	20.3				70 - 130	30	
Chloromethane	ND	1.0	91	110	18.9				70 - 130	30	
cis-1,2-Dichloroethene	ND	1.0	97	118	19.5				70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	94	112	17.5				70 - 130	30	
Dibromochloromethane	ND	0.50	93	110	16.7				70 - 130	30	
Dibromomethane	ND	1.0	87	100	13.9				70 - 130	30	
Dichlorodifluoromethane	ND	1.0	139	161	14.7				70 - 130	30	I
Ethylbenzene	ND	1.0	96	115	18.0				70 - 130	30	
Hexachlorobutadiene	ND	0.40	105	118	11.7				70 - 130	30	
Isopropylbenzene	ND	1.0	100	118	16.5				70 - 130	30	
m&p-Xylene	ND	1.0	96	115	18.0				70 - 130	30	
Methyl ethyl ketone	ND	5.0	80	107	28.9				70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	93	110	16.7				70 - 130	30	
Methylene chloride	ND	1.0	94	113	18.4				70 - 130	30	
Naphthalene	ND	1.0	99	113	13.2				70 - 130	30	
n-Butylbenzene	ND	1.0	106	124	15.7				70 - 130	30	
n-Propylbenzene	ND	1.0	101	118	15.5				70 - 130	30	
o-Xylene	ND	1.0	95	113	17.3				70 - 130	30	
p-Isopropyltoluene	ND	1.0	102	118	14.5				70 - 130	30	
sec-Butylbenzene	ND	1.0	107	126	16.3				70 - 130	30	
Styrene	ND	1.0	94	112	17.5				70 - 130	30	
tert-Butylbenzene	ND	1.0	101	119	16.4				70 - 130	30	
Tetrachloroethene	ND	1.0	96	112	15.4				70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	82	94	13.6				70 - 130	30	
Toluene	ND	1.0	95	112	16.4				70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	103	124	18.5				70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	92	108	16.0				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	95	112	16.4				70 - 130	30	
Trichloroethene	ND	1.0	99	114	14.1				70 - 130	30	
Trichlorofluoromethane	ND	1.0	110	127	14.3				70 - 130	30	
Trichlorotrifluoroethane	ND	1.0	90	105	15.4				70 - 130	30	
Vinyl chloride	ND	1.0	101	119	16.4				70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	98	97	1.0				70 - 130	30	
% Bromofluorobenzene	100	%	101	102	1.0				70 - 130	30	
% Dibromofluoromethane	90	%	94	92	2.2				70 - 130	30	
% Toluene-d8	97	%	99	99	0.0				70 - 130	30	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.
s = This parameter is outside laboratory Blank Surrogate specified recovery limits.

QA/QC Data

SDG I.D.: GCB96386

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
November 19, 2018

Monday, November 19, 2018
Criteria: CT: GWP, SWP
State: CT

Sample Criteria Exceedances Report

GCB96386 - TIGHE-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB96386	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	1.2	0.05	0.077	0.077	ug/L
CB96386	$8100CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.42	0.05	0.3	0.3	ug/L
CB96386	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB96386	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB96386	$8260GWR	Benzene	CT / RSR GWPC (ug/l) / Volatiles	40	7.0	1	1	ug/L
CB96386	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.32	0.068	0.25	0.25	mg/L
CB96386	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.32	0.068	0.25	0.25	mg/L
CB96386	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.138	0.001	0.1	0.1	mg/L
CB96387	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB96387	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CB96387	NI-WM	Nickel	CT / RSR GWPC (ug/l) / Inorganics	0.244	0.001	0.1	0.1	mg/L
CB96388	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.28	0.05	0.077	0.077	ug/L
CB96388	$8100CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.2	0.05	0.3	0.3	ug/L
CB96390	$8100CTSIMR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.08	0.05	0.06	0.06	ug/L
CB96390	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.84	0.05	0.077	0.077	ug/L
CB96390	$8100CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	0.74	0.05	0.3	0.3	ug/L
CB96390	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.64	0.069	0.25	0.25	mg/L
CB96390	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.64	0.069	0.5	0.5	mg/L
CB96390	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.64	0.069	0.25	0.25	mg/L
CB96391	$8100CTSIMR	Acenaphthylene	CT / RSR SWPC (ug/l) / Semivolatiles	1.7	0.05	0.3	0.3	ug/L
CB96391	$8100CTSIMR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.37	0.05	0.077	0.077	ug/L
CB96391	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.50	0.067	0.25	0.25	mg/L
CB96391	$ETPH_WMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR SWPC (ug/l) / APS Organics	0.50	0.067	0.25	0.25	mg/L
CB96501	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CB96501	$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 exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Tighe & Bond

Project Location: ROCKVILLE MGP ***Project Number:***

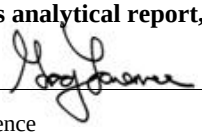
Laboratory Sample ID(s): CB96386-CB96391, CB96501 ***Sampling Date(s):*** 11/12/2018

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: 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 19, 2018

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 19, 2018

SDG I.D.: GCB96386

SDG Comments

8270 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 8270 selective ion monitoring (SIM).

Volatile 8260 analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet the GWP these compounds are analyzed by GC/ECD to achieve this criteria.

Cyanide Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/16/18-1 Jordan Olowu, Greg Danielewski, Chemist 11/16/18

CB96386, CB96387

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 456521 (CB91971)

CB96386, CB96387

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 11/14/18-1 Jeff Bucko, Chemist 11/14/18

CB96386, CB96387, CB96390, CB96391

The initial calibration (ETPHN06I) 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 456159 (CB96386)

CB96386, CB96387, CB96390, CB96391

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.

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November 19, 2018

SDG I.D.: GCB96386

ETPH Narration

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 11/14/18 08:09 Rick Schweitzer, Chemist 11/14/18

CB96386, CB96387

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 456228 (CB96387)

CB96386, CB96387

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%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 11/14/18 11:51 Cindy Pearce, Chemist 11/14/18

CB96386, CB96387

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 456186 (CB96754)

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Certification Report

November 19, 2018

SDG I.D.: GCB96386

ICP Metals Narration

CB96386, CB96387

All LCS recoveries were within 75 - 125 with the following exceptions: None.

ICPMS Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ICPMS 11/16/18 14:23 Mike Hornak, Chemist 11/16/18

CB96386, CB96387

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 samples did not meet internal standard criteria: None.

QC (Site Specific):

Batch 456474 (CB96386)

CB96386, CB96387

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:

CHEM05 11/15/18-1 Adam Werner, Chemist 11/15/18

CB96386, CB96390, CB96391

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM05/5_BN_1114):
94% 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 (CHEM05/1115_03-5_BN_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):

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 19, 2018

SDG I.D.: GCB96386

SVOA Narration

Batch 456158 (CB96386)

CB96386, CB96387, CB96388, CB96389, CB96390, CB96391

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: % Nitrobenzene-d5(28%)
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%)

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 456158 (Samples: CB96386, CB96387, CB96388, CB96389, CB96390, CB96391): -----

The LCSD recovery for one of the surrogates is below the lower range. The other surrogates and all of the target analytes are acceptable. No significant bias is suspected. (% Nitrobenzene-d5)

One of the surrogate recoveries in the blank is below the lower range. A slight low bias is possible. (% Nitrobenzene-d5)

Instrument:

CHEM27 11/14/18-2 Keith Aloisa, Chemist 11/14/18

CB96386, CB96387, CB96388, CB96389, CB96390, CB96391

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/27_bnSIM_1026):
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 (CHEM27/1114_20-27_bnSIM_1026):
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 456158 (CB96386)

CB96386, CB96387, CB96388, CB96389, CB96390, CB96391

All LCS recoveries were within 30 - 130 with the following exceptions: None.
All LCSD recoveries were within 30 - 130 with the following exceptions: % Nitrobenzene-d5(28%)
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%)

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 19, 2018

SDG I.D.: GCB96386

SVOASIM Narration

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 456271 (Samples: CB96386, CB96501): -----

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, Dichlorodifluoromethane)

QC Batch 456620 (Samples: CB96386, CB96387): -----

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, Dichlorodifluoromethane, Trichlorofluoromethane)

Instrument:

CHEM02 11/13/18-2 Michael Hahn, Chemist 11/13/18

CB96386, CB96501

Initial Calibration Verification (CHEM02/VT-P1112):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.030 (0.05), 2-Hexanone 0.073 (0.1), 4-Methyl-2-pentanone 0.092 (0.1), Acetone 0.041 (0.1), Bromoform 0.092 (0.1), Methyl ethyl ketone 0.057 (0.1), Tetrahydrofuran (THF) 0.041 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1113_31-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 0.237 (0.3), 1,2-Dibromo-3-chloropropane 0.026 (0.05), Acrylonitrile 0.045 (0.05), Bromoform 0.082 (0.1), Tetrahydrofuran (THF) 0.032 (0.05)
The following compounds did not meet minimum response factors: None.

CHEM02 11/13/18-3 Michael Hahn, Chemist 11/13/18

CB96386, CB96387

Initial Calibration Verification (CHEM02/VT-P1112):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.030 (0.05), 2-Hexanone 0.073 (0.1), 4-Methyl-2-pentanone 0.092 (0.1), Acetone 0.041 (0.1), Bromoform 0.092 (0.1), Methyl ethyl ketone 0.057 (0.1), Tetrahydrofuran (THF) 0.041 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/1113_59-VT-P1112):
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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RCP Certification Report

November 19, 2018

SDG I.D.: GCB96386

VOA Narration

The following compounds did not meet % deviation criteria: 1,2,3-Trichlorobenzene 32%L (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.249 (0.3), 1,2-Dibromo-3-chloropropane 0.026 (0.05), Acrylonitrile 0.049 (0.05), Bromoform 0.081 (0.1), Tetrahydrofuran (THF) 0.037 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 456271 (CB96501)

CB96386, CB96501

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(139%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(139%), Dichlorodifluoromethane(161%)
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%.

Batch 456620 (CB96297)

CB96386, CB96387

All LCS recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(141%), Dichlorodifluoromethane(165%), Trichlorofluoromethane(132%)
All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(143%), Dichlorodifluoromethane(168%), Trichlorofluoromethane(136%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 3.6C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

CHAIN OF CUSTODY RECORD

Temp 3.0 Pg ___ of ___

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
[ ] Fax #: ___
[X] Email. LEWilley@Tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown, CT

Project: Rockville MGP
Report to: Lynn Willey
Invoice to: Westfield Office
Phone #:
Fax #:

Project P.O: 14-0755-44B

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: William Champagne Date: 11-12-18

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	RSR Metals	Total Cyanide	PAHs	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz [ ] As is [X] HCl ( ) oz	40 ml VOA Vial [ ] As is [ ] H2SO4	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ]250ml [ ]500ml [ ]1000ml	PL H2SO4 [ ]250ml [ ]250ml [ ]500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria (as is)	Bacteria (w/thio)
96386	MW-14D	GW	11-12-18	1235	X	X	X	X	X					3	3			1	1
96387	MW-14S			1025	X	X	X	X	X					3	3			1	1
96388	MW-26D			255					X						2				
96389	MW-26D(FILTERED)			255					X						2				
96390	MW-30S			420		X			X						3				
96391	MW-30S(FILTERED)	↓	↓	420		X			X						3				
96501	TRIP BLANKS																		
														2					

Relinquished by:	Accepted by:	Date:	Time:
William Champagne	Robin Laverie	11.13.18	10:52
Robin Laverie	Lynn Trumbull	11.13.18	1140

Comments, Special Requirements or Regulations:

DAS Pricing Quote: TI0125178A

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[X] 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

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 22
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